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Original Articles

OLD DOC'S CHRISTMAS

BY A. C. E.

Seated before a box-stove fire, in a round yellow armchair, of which his waiting-room contained two, and three black ones, like those usually found in the sitting-rooms of country inns, old Doc Lampard smoked his long, straight brierwood and gazed vacantly at the glowing coals intermittently dropping below the damper. It was Christmas Eve.

His right arm lay on a large oblong table once stained brown, as could be seen from the few stray patches covering its legs. Some old medical books, a few scientific journals mostly with their wrappers still on, an inkstand and pen, blue, yellow and red advertisement blotters, samples of pharmaceuticals left by the ubiquitous detail man, littered the table. By his side rested a letter-sized epistle only just laid down.

The table, which was of unusual size, occupied the space against the north wall and part of the east, the latter being all window and front door which led out onto a wide verandah. A step or two below this ran the village sidewalk, mixed ashes and gravel, now covered deep with snow.

A lamp was burning on the table, exhibiting his license to practise and diploma or "sheepskin" hanging on the wall above; and save for a big brown earthenware cuspidor, there was nothing else in the room.

The floor was bare and embossed with knots, the result of the

heavy soles of the neighboring farmers' and villagers' cowhide boots and shoes. The lower half of the window was frosted, so that any one on the verandah could see all within at a glance, but could not be seen by the old Aesculapian, unless he arose from his chair.

Through the south wall there led a door into the dispensing room; through the west, one into the library and consulting room; off this a bedroom, and a rear hallway to a door and walk leading to his private residence.

Only a few yards away was the residence, large and commodious, well-furnished, comfortable. He had not occupied it that winter, preferring to make his home in the office building.

His wife had been long dead; his only daughter, married, and bringing up a family of her own in a large city several hundred miles away. He had returned in the early fall after spending the summer with this daughter and her family at their summer home on the St. Lawrence. His three sons, grown to manhood, were in prominent positions in the Canadian west, hundreds of miles from their father's hearthstone. The eldest, John, was married, and possessed two fine, sturdy boys of eight and ten years. Will and David were still single.

When he had gone away in the spring his housekeeper had married a widowed farmer living at the edge of the village. He had not the heart to bring in a stranger. He lived the lonely life of a bachelor.

Seventy winters had frosted his long beard. His hair was gone on the top; it was white at the edges. The moustache was gray, approaching white, except for an amber-colored patch on the right side. He had been all his student and professional life a slavish disciple of the goddess Nicotine.

Like his wife and family, Doctor Lampard's practice was gone; but he knew he might have a home with either his daughter or his eldest son, John. The fear of jealousy arising between the two families, the fear that he might be in the way, the fear of being a burden possessed him. Like all old men he had this strange senile psychosis.

For over forty years, Old Doc, as he was lovingly and not disrespectfully called by his patients, had practised in the village of Twillingate. He had for all those years, through wind and sleet, rain and shine, mud and snowdrifts, bitter cold and sultry heat, day and night, Sunday, holiday and every day administered to their bodily wants. He had outpatienced his patients. His

fame even in one disease, diphtheria, had travelled beyond the confines of his own territory, and often he had long drives for consultations with brother practitioners.

And now his horses and road outfit were gone—sold. He had no further use for them. Not but what he thought he was just as good a practitioner as he ever was, but the people, while they loved him, took pity on him in his old age and loneliness. They said: "Old Doc has made his fortune. Let him rest in peace in his old age. Let him enjoy the evening of life."

But little the people or his patients knew of his affairs. He had never kept any books—hadn't the time; had never sent out any bills—wouldn't bother; had just taken money when it was given him or when he needed it had asked for it; or oats, hay, potatoes, wood, chickens, eggs, a quarter of beef or a dressed hog.

Then a young doctor with a bent for surgery had established himself five years ago in the neighboring village two miles away. People disliked getting Old Doc out of his bed, nights, and drove by to the younger man.

It soon began to be the same when the days were stormy, or cold, or rainy. There were long drives. It was not right to ask an old man to do all this heavy work, especially as he had had his day. He was rich. And then they loved him. They were saving of him.

So Doc Lampard's practice had all drifted away from him and he only had a few of the poorer families in the village who required his services. They had no money—nothing; never had any. What else could they do? What else could he do? Rest. Sleep, smoke and eat.

Still Old Doc was not happy, even though he enjoyed the respect and love of all. He pined for his own boys and his little daughter again. If he only had them all around him once more, and their little ones, he thought he could be happy and contented and die peacefully.

As he sat and smoked, gazing into the fire, ever and anon taking his snow-white beard in his left hand at the chin and drawing his head back as he caressed its entire length, fond thoughts passed through his mind, fond thoughts of bygone Christmas eves —Christmas eves, when he would bring home in his cutter late at night, a little spruce or pine tree cut from some swamp by the roadside as he returned from a call. And then he would go over year after year, how and with what his wife and he had lovingly decorated and equipped it. By and by his boys had grown to man-

hood, away doing for themselves, and then there were joyful home-comings at Christmas times.

Then there came the time when Edith had married and been taken to her own home in the big city four hundred miles away. John, too, soon afterwards—the first break in Christmas home-coming. Will and David had come only once since that, but it was so unlike the old home-comings. Then the mother had died suddenly, and they had not been home for five years now.

Rousing himself from his reverie, he got up and stood at the side of the table, looking out of the window into the night. Standing with his face close to the window, he could see the snow falling gently, great large flakes of feathery down, a short stretch of roadway, and the village cobbler's cottage beyond in its little garden enclosure. It was now nine. Suddenly the light went out in a small window in the cottage. The village shoemaker and his family had retired for the night.

He heard the sound of the merry jingle of sleigh bells coming up the road from the direction of the lower end of the village. His heart almost stood still as he turned his eyes down that way. A fond longing was in his bosom. A sleigh load of happy young people dashed into his range of vision and sped by on its way to a surprise party, all waving their hands at him and shouting, "Merry Christmas, Doc!"

He waved his hand back to them as they darted out of sight.

"Well, I guess I'll fix up the fire and go away to bed myself," he sighed, "but I do wish one of the boys had come home."

He turned and his eye caught the letter lying open on the table. He put down his pipe, took out his spectacles, replaced the case in the upper right hand pocket of his waistcoat, drew out his handkerchief and wiped both lenses, adjusted them to his eyes, took up the letter and began to read it as he had done before a half dozen times that evening, after getting it from the post office in the afternoon, when the stage brought the mail in from the neighboring town twelve miles distant.

It was from his daughter Edith, warmly pressing him to come and spend the Christmas holidays with them, as her husband could not leave his business on account of his clerks going away for the holidays. But the letter written a week before had been delayed in transmission, probably owing to the heavy Christmas mails. He might have gone, but it was too late now. There would be no train, and even if there had been he would have been loth to ask any one to drive him to the stage town on Christmas eve.

As he lay down his glasses and the letter to reach for the poker to stir the fire and put more wood on for the night, he heard a heavy stamping of feet on the verandah. Quickly he raised himself, turning at the same time and still holding the poker in his hand, an eager, expectant look fastened on the door as it swung open.

"Merry Christmas, Doc!" cheerily called out James Walker, the farmer who had married his housekeeper the previous spring, as he walked in and closed the door, still continuing stamping the snow from his feet and shaking it from his big gray ulster.

"My, Jim, you scared me! I must be getting old and nervous when a sudden call like this will so upset me. Pull a chair up to the fire! I was just going to fix it up and go to bed," and he began hurriedly to poke the fire and put a couple of fresh sticks in the stove. "Have a pipe?"

James Walker took the proffered pipe which Old Doc reached from a drawer in the table, pulled up an arm-chair and stretched his feet under the side of the box-stove.

"Any of the boys coming home for Christmas?" was his first question.

"No, I guess not. Not that I've heard of," a little slowly and sorrowfully. "There wouldn't be much Christmas here now if they did."

"Doc, you ought to go and live with your daughter or with John. The neighbors are all talking about you. This is no place for an old man like you to be living all alone. Some thief will come along some night and rob you, and maybe worse, murder you for your money," and the farmer, his pipe gone out, drew another match across the stove.

"Humph! They'd get a lot," mumbled the old man under his beard, answering the latter admonition and ignoring the first.

"Well, that's what they're saying, anyway, and they think it, too, Doc," proceeded the farmer. "They say it is not right of you to stay on here, much as we all like to have you with us, and not right of your family to let you live on here alone, with all your money in the house, too."

"Money! Who says I have money?" placing his hands on the arms of his chair and bending forward, looking straight into the farmer's eyes.

"Why, everybody. It's well known you're a rich man; and the neighbors all think you keep a lot of it with you."

"The people all think I'm a rich man and that I keep a lot of it with me," slowly repeated the old man, as he settled down into his chair again.

Then there was silence for a few moments, nothing but the draft in the stove and the quiet puffs from the pipes breaking the stillness as Doc Lampard reviewed his professional life—no books, no accounts, hardly ever a dun.

"They all love you, Doc," began James Walker again, "and they don't like to see you living all alone like this."

"They all love me!" sighed the old doctor in reply, and then he relapsed into silence again, gazing at the little coals and sparks dropping, dropping, dropping.

* * * * * * * * * * *

It was a merry and joyous party gathered in the parlor of the leading hotel of the stage town of Twillingate village. There were Edith and her husband and three sweet girls of six, eight and ten years. Will was there, and David.

"Won't grand-dad have a jolly surprise party?" confidingly whispered the eldest girl to her Uncle John.

"We'll all have a jolly party," exclaimed John, with an extra fond hug.

"I've got a surprise party all my own, Edith," broke in Will. "I'm going to be married in January to the sweetest girl in all the West," and before Edith could embrace and kiss her good wishes, David broke in with: "No, you haven't got the sweetest girl—I've got her. Ours is in February."

"Hurrah!" cried John's two boys, "two more aunties," while their mother gently reproved them for their boisterous hilarity.

"Here are the sleighs!" called Edith's husband, poking his head in at the parlor door. He had made arrangements to get away at the last minute after Edith had got the wire the day before from John that they were all on their way east to spend Christmas with grand-dad, and as grand-dad had not answered her letter or come himself in response to her invitation, they had taken the seven o'clock morning express, first despatching a message to him apprising him of their visit. But the telegram had arrived too late for the stage, and there was no one to take it out to Old Doc.

"Now, have we got everything: turkey, chickens, cake, pudding, nuts, candy, oranges, bananas, raisins, grapes, bread, butter, eggs, tea, sugar, salt, pepper, because you know dad has been 'baching' it these three months and will not have much in the way

of eatables in the house?" and John went over the list for the sixth time.

"Yes," laughed Edith, "and I've got bacon, canned goods, potatoes, celery, milk, cranberries and a whole lot of things, besides the case of pipes and the slippers."

"Tobacco?" called back Will as he was going out first with his arms full of parcels.

"Yes, Will, and tobacco," and she indicated with a nod a red tin she was carrying in her arms.

"Come on, then; let's hurry! It's going to eight, and we have twelve miles to drive," and John took a last hasty look around the parlor to see if anything was being left behind.

* * * * * * * * * * *

James Walker had gone after exacting a half-hearted promise from Old Doc to come and have Christmas dinner at his home. That was why his wife, Mary, had sent him to the doctor's office that night.

Old Doc still sat on dozing, awakening every little while as some cutter or sleigh sped by, then gazing into the fire. He seemed unconcerned now. His bed was forgotten. He was living his Christmas eves over again.

Now two faces are looking in at him over the frosted panes; two faces he loves well, John and Will, who had left the sleighs at the lower end of the village. They had got Edith's telegram at the hotel in town and so knew that it would be a surprise to the old man to see them all, and they didn't want it to be too sudden. There was a glad light in their eyes as they took in the bent form, the well-remembered head, the shiny crown, the snow-white hair and beard.

"John," whispered Will, "you must take him home with you!"

"I would, gladly, but Edith says she's going to have him for good and sure this time, and I guess that will be for the best. Come!" and he took Will quietly by the arm and softly opened the door.

"Merry Christmas, dad!" and both were upon him, their arms around him.

"John—Will! Oh! This is too good," as he arose tremulously and put an arm around the shoulders of each.

Sleigh bells came jingling, quivering. Youngsters' lusty throats were calling heartily. There was a rough and tumble scramble to see who would be out first and in to see grand-dad.

"We're all here, dad—all the kids and Henry and Edith, and David, too," and John placed an arm around him as Edith hastened to her father's embrace.

"Well," he chuckled, "I guess Old Doc is going to have a Christmas after all."

THE CLINICAL FEATURES AND TREATMENT OF ACUTE PERFORATING GASTRIC AND DUODENAL ULCER

By Ellsworth Eliot, Jr., M.D., of New York.
Surgeon to the Presbyterian Hospital.

A most interesting paper on this subject is begun in the April number of *"Annals of Surgery."* One could wish that space would permit the reproduction of the entire paper; but failing that, an attempt will be made to single out the salient points, at least, of this comprehensive discussion. Free quotation will be made from the original article.

Symptoms.—Dr. Eliot says, ... "the perforation is usually preceded by a more or less well-defined history of gastric disturbance, which in many instances does not differ materially from that of a chronic dyspepsia; exceptionally the perforation may occur without the slightest premonition at any time of day or night in a patient who, up to that time, has enjoyed perfect health. The onset of the perforation is marked by severe pain. This is undoubtedly the most constant subjective symptom."

Character of pain is mostly knife-like, epigastric in location and is frequently borne by the patient only with the greatest difficulty. "The pain is usually increased by inspiration, by turning from one side to the other, or by raising the body, unassisted by the elbows, to a sitting posture, and possibly by the flexion of one or both thighs."

"Vomiting, although by no means constant, is, next to pain, the most important subjective symptom." It occurs in from half to two-thirds of all cases of acute perforation, shortly after the advent of the pain, and may recur with increasing frequency as the peritonitis becomes further advanced. The character and quantity of the vomitus naturally vary according to the nature and amount of stomach contents at the time of the perforation. If stomach be quite empty at the time of perforation, vomitus will

consist chiefly of bile and mucus. "Blood in any considerable quantity is at all times a rare constituent." Vomiting is more common in duodenal than gastric perforation, for in this latter condition the physiological act of vomiting is, of necessity, materially modified by the fact that even with but slight expulsive effort the gastric contents escape more easily downward through the perforation into the peritoneal cavity, than upward through the esophagus; whereas in perforation of the duodenum the stomach wall is intact, and the mechanism of vomiting, in consequence is undisturbed.

" Shock, with its associated symptoms, is certainly the exception in both gastric and duodenal perforations. . . . It is essential to emphasize this fact, for the opposite view, frequently held by different authors, leads to erroneous diagnosis and to dangerous, if not fatal delay in operation. For similar reasons it is well, in this connection, to emphasize the fact that shock, when present, is no contraindication to immediate operation."

The objective symptoms embrace changes in character of respiration, (being mostly thoracic), the presence of tenderness, and muscular resistance, together with dullness in either the left or right flank. Of these, muscular resistance is regarded by Dr. Eliot as the most constant and most valuable objective symptom, and in its point of maximum intensity the most reliable guide to the site of the lesion.

Diagnosis.—The condition with which it is most frequently confused is acute appendicitis. In gastro-duodenal perforation the onset of pain is more sudden, while its location is more definitely epigastric. In the early hours after the onset of either lesion the diagnosis should be easily made by the difference in the physical signs; while in perforation the tenderness and rigidity are most marked above the level of the navel to the right (duodenal or pyloric) or to the left of the median line (cardia), according to its location, in acute appendicitis the tenderness and rigidity are most marked in the right lower quadrant. In perforation the dullness is elicited in either the right or left loin, while in appendicitis it is more tardy in its appearance, and is located at first between the anterior superior spine and the umbilicus.

"The lesions in the upper right quadrant for which acute perforation may be mistaken, include those of the gall-bladder, the pancreas, and the appendix.

. . . . Severe acute cholecystitis, especially of the gangrenous type, with or without perforation, may simulate acute perforation at or near the pylorus, so closely as to render differential diagnosis well nigh impossible. . . . In perforation the pain

is usually nearer the mid-line than in acute cholecystitis, although exceptions to this rule are numerous. . . . The differential diagnosis between perforating ulcer and acute pancreatitis may be much more difficult than between perforation and either appendicitis or cholecystitis. . . . Occasional obstipation, together with vomiting, may suggest intestinal obstruction."

Dr. Eliot goes on to say:—"The consideration of the differential diagnosis of perforating ulcer could not be passed over without emphasizing one final important point, that no matter what the condition which may simulate a perforation, immediate operation is just as necessary and delay may be just as dangerous as if a perforation actually existed. In other words, that any lesion of which the subjective and objective symptoms simulate perforation, should be immediately referred to the surgeon, and that delay for any reason can only be prejudicial to the patient's interest, and is therefore entirely unjustifiable."

It is also to be borne in mind that . . . "ulcers in which perforation may occur are single or multiple; in the latter event ulcers may be found simultaneously in the stomach and duodenum." . . . "The ease with which multiple perforations are overlooked emphasizes the necessity of a rapid, but careful search of both sides of the stomach before the abdominal wall is closed."

Treatment.—The treatment of perforation is exclusively surgical, and consists in the closure of the perforation, with or without a partial or complete excision of the ulcer proper. Simple suture of a perforation seems to be followed by as complete a cure of the affected ulcer as is accomplished by its excision. It should be borne in mind that excision can in no way remove the cause of ulceration—whatever that may be—and that after successful excision, through the formation of new ulcers the patient may be again subjected to the risk of perforation, hemorrhage, or any other serious complication.

Dr. Eliot goes very fully into the subject of drainage, and the toilet of the peritoneal cavity. He considers the most efficient drain is a soft rubber tube with a gauze strip inside. The gauze should not fill the entire lumen. Any form of suction attached to a drain improves its efficiency. He considers that gastro-enterostomy probably diminishes the danger of the perforation of co-existing ulcers by facilitating the passage of the gastric contents into the intestine. It is the general custom to give small quantities of food by the mouth as early as 15 to 20 hours after operation, and if tolerated, this amount is rapidly increased.

T. B. R.

WHY NOT HOLD THESE CASES?

By G. R. Williams, M.D., Paris, Illinois,

Author of "Laboratory Methods, with Special Reference to the Needs of the General Practitioner," "Surprises, Delights, and Curiosities Met in Medical Laboratory Work," etc., etc.

Specialism is, within certain limitations, a necessary phase of medicine, but when carried to the extreme, aims at the ruin of the country practitioner. No better is this shown than in the tendency on the part of the latter to refer his patients to the hospital physician for a diagnosis by modern methods, after which he rarely ever sees these people again, or, when they return, hold a less exalted opinion of him. The word spreads around the neighborhood that he is a fogey, and the loss is great.

How much better it would be if samples of urine, pus, etc., were submitted to a medical expert and an opinion asked. And yet it would be best of all if the practitioner would inform himself upon the more simple analytical methods and apply these in his own office and send away such samples as lack of time, experience and equipment rendered impossible of completion. I am speaking only from the standpoint of the practitioner, being, as I am, one of the ninety-five per cent. of our profession located in towns where the family doctor serves the needs of the people.

Surely the family doctor cannot shut his eyes much longer to the fact that the laboratory methods threaten his very future if he does not properly inform himself in these. Our younger men are coming into our communities trained in these things and are able to convince the people that they are best fitted to do their medical work.

An ulcer which is refractory to all methods of treatment which you can devise is finally released by you to the larger hospital. It heals so quickly that you are astonished and chagrined. Still, with a twenty-five cent bottle of drawing ink you could have found the germs of syphilis and administered the salvarsan. The man with "nephritis," whom you have given up to die, returns to tell all his friends concerning the wonderful methods they use in town, when with but a simple staining process you might have seen the parasites in the blood which were causing the cachexia. One case of "dyspepsia" is given a blood count and a rotting appendix removed. The sputum of another is examined and a radical but scientific change made in the treatment. And so it goes down the line, these men doing just what you could have done.

Many of those analytical procedures introduced during the past few years have proven worthless. But it is just as well to realize that certain others have stood the test and have proven priceless to the man who desires to diagnosticate best and treat best his patients.

There is a feeling among many of the older practitioners that the field of laboratory work is for them an impossible field. This is not correct. For the really valuable test may be easily carried out by the ordinary practitioner with but little study, which he will find absorbing; with but little expense, which will prove a good investment for the future, and with very little trouble or loss of time, which will more than repay for the slight effort he will put forth.

Where do you stand? If the ink on your diploma dried many years ago, it is not even yet too late to insure your future. Even though you may never have looked through a microscope nor held a test tube in your hand, it is easy for you to learn. Purchase some of the more valuable and inexpensive bits of apparatus and the smaller and more practical guides, and you will have no trouble. Many others, even the older men, are doing this and are becoming enthusiastic in the work. I have carried on a large correspondence with men who are fitting themselves in this line of work, and am always willing to answer questions, providing return postage is always enclosed. I have demonstrated that the little laboratory in the physician's office is just as reliable as the one with marble walls and mahogany desks or nickel-plated apparatus. Though asphalt pavements do not lead to success, the feeble rays of a tiny lantern may illuminate many a stone which would otherwise stub the toe. Step by step one goes a long way. Avoid the big books intended for the student and research worker and the encyclopedia with its countless embroidered descriptions, where much whittling of the bark would be necessary to reach the pith.

Secure the simple but necessary apparatus. Start your work not by idle reading, but by carrying out the tests, and soon you will marvel at your progress. Stick to it. It will pay you. It will save you. Your neighbor's "bosh" will be but as the kick of the ass and will not kill. Do not have the temerity to kick against the pricks.

Save your patients and your future. To-morrow the whole world will be awake. To-morrow, just as you are in the prime of your practice, do you wish to be shelved as incapable? It is in your journals and your books. Short talks with your colleagues will drive home the truth. Do not eat and do not sleep until you have made the start.

Proceedings of Societies

THE MUSEUM AT THE SEVENTEENTH INTERNATIONAL MEDICAL CONGRESS, 1913

A committee, with Prof. A. Keith, of the Royal College of Surgeons, as chairman, has been formed for the purpose of organizing a museum in connection with the Seventeenth International Congress of Medicine, London, 1913. The arrangements have been entrusted entirely to this committee, and it has been invested with the power of acceptance or refusal of any offered exhibit.

It has been recognized that the collection of material illustrative of recent advances in medical science in one centre possesses obvious advantages over the plan of leaving each section to collect and house the specimens and other material required by the readers of papers for their communications, separately. A central museum offers to a large number of members of the Congress an opportunity of studying these advances from the available material, and this study is enhanced by the co-ordination of the various departments.

The committee has drawn up regulations which shall govern the museum and is following a plan of procedure. The museum will consist of exhibits illustrating the subjects which will be discussed in the various sections and such other material as the committee may deem of interest or importance. The specimens will embrace the scientific side of medicine, to the exclusion of a commercial element. Excellent accommodation has been secured for the purpose at the Imperial College of Science, South Kensington, and the museum will be arranged in this place as far as is possible in correspondence with the sections of the Congress. The co-operation of the officers of each section has been obtained, in order that the collections may be worthy of the occasion. It has further been decided that inasmuch as the meeting is to take place in London, and as the visitors will doubtless desire to inspect the metropolitan hospitals and other great institutions, material will not be collected from the museums of the metropolis. The committee is, therefore, seeking exhibits from provincial and foreign institutions and from private collections.

Medical practitioners and scientists who are willing to place at the disposal of the committee material illustrative of recent

advances in any branch of medical science are requested to communicate with the Hon. Secretary of the Museum Committee (H. W. Armit, Ravenhurst, Talbot Road, Wembley).

The committee is prepared to defray the expense of transit of the exhibits and to insure them against damage and loss, and will take every precaution to return them in good condition to their respective owners.

Exhibitors will be invited to hold demonstrations in the museum on their own specimens.

It may further be pointed out that permission has been obtained from the Council of the Congress to keep the museum open for a few days after the Congress has ended, if it be found desirable to do so.

PRELIMINARY LIST OF SUBJECTS TO BE INCLUDED IN THE MUSEUM OF THE SEVENTEENTH INTERNATIONAL CONGRESS OF MEDICINE.

1. *Anatomy*—Dissections. Macroscopical and microscopical specimens.

2. *Physiology*—New forms of apparatus (to be shown by physiologists only). Records of recent observations. Anatomical specimens, with especial reference to reciprocal innervation.

3. *General Pathology*—Muscular system of the heart. Grafting of normal tissues. The pathology of shock.

3a. *Chemical Pathology*—Pathological conditions due to the effect of diet. Clinical application of pathological chemistry. Chemical pathology of the alimentary tract.

4. *Bacteriology*—Cancer. Filter passers. Leprosy. Anaphylaxis.

5. *Pharmacology*—Non-bacterial toxins and antitoxins. The results of thermal treatment.

6. *Medicine*—Chronic arthritis. Heart failure. Diabetes. Hemolysis.

7. *Surgery*—Malignant disease of the large intestine. Tumors of the brain. Intrathoracic surgery. Arterial surgery.

7a. *Orthopedics*—Treatment of spastic paralysis. Treatment of scoliosis. Treatment of ankylosis. Treatment of tuberculous disease of joints in childhood.

8. *Obstetrics and Gynecology*—Cancer of the uterus. Hemorrhage from the placental site.

9. *Ophthalmology*—Chronic uveitis. Glaucoma operations.

10. *Diseases of Children*—Coli infections of the urinary tract. Effect of the ductless glands on development. Surgical treatment of tuberculosis in childhood. Poliomyelitis and polioencephalitis.

11. *Neuro-Pathology*—Motor aphasia, anarthrie and apraxia. Tumors of the brain. The myopathies. Parasyphilis.

12. *Psychiatry*—The psychoses of infections and auto-inoculations.

13. *Dermatology and Syphilography*—Exhibits of this section will not be included in the general museum.

14. *Urology*—Early renal and vesical tuberculosis. Malignant disease of the prostate.

15. *Rhinology and Laryngology*—Neoplasms of the nose, accessory sinuses and naso-pharynx. Rarer forms of laryngeal tumors. Diseases of the trachea and bronchi. Broncho-esophagoscopy.

16. *Otology*—Exhibits of this section will not be included in the general museum.

17. *Stomatology*—Periodontal diseases.

18. *Hygiene and Preventive Medicine*—The mortality of infants during the first four weeks of life. Visual defects in school children. Diseases of the lung due to dust.

19. *Forensic Medicine*—The forensic aspect of syphilis. The psychology of crime.

20. *Naval and Military Medicine*—Transport of the wounded in hill warfare. Hospital ships. Water supplies in the field. Antityphoid inoculations. Sanitary organization in the Tropics. Caisson disease.

21. *Tropical Medicine*—Leishmaniasis. Relapsing fever. Beri-beri. Plague. Tropical diseases of the skin. Filariasis. Worms.

22. *Radiology*—Technical advances in radiography. Radiographs illustrating diseases of various organs, etc.

Special Department—The technique of the museum.

Medicine

Graham Chambers, R. J. Dwyer, Goldwin Howland,
Geo. W. Ross, Wm. D. Young.

Brill's Disease. (*Med. Rec.*) (Abst. *Interstate Med. Jour.*)

To Dr. N. E. Brill, of New York, belongs the great credit of having isolated from the mass of confusing fevers seen in a large general hospital, a group with uniform and definite findings. This group had been studied by Brill for many years before he felt justified in describing the disease as an undoubted clinical entity; and, in the literature which followed the publication of his articles, the disease became known by his name. As there still seems to be some discussion as to the nature of the malady, we shall keep the name, "Brill's disease."

The definition of the disease is quoted verbatim from Brill's report: "An acute infectious disease of unknown origin and unknown pathology, characterized by a short incubation period (four tc five days), a period of continuous fever, accompanied by intense headache, apathy and prostration, a profuse and extensive erythematous maculo-papular eruption, all of about two weeks' duration, whereupon the fever abruptly ceases either by crisis within a few hours, or by rapid lysis within three days, when all symptoms disappear."

Headache is intense, conjunctivæ are congested. About the sixth day a characteristic rash appears. At first found over the abdomen and back, it quickly spreads to the thorax and to the arms and thighs, and occasionally to the neck, forearms, hands, legs and feet. The rash is dull red, very slightly raised, does not disappear on pressure, does not appear in crops, is profuse and is distinctly erythematous. The pulse is not high—86 to 100 per minute, is soft, full, of low tension and often dicrotic. The temperature reaches its fastigium on the second or third day, remains constantly high till just before the crisis, when a precritical rise may occur. Constipation is a marked feature of the disease. The spleen is frequently, but not always, enlarged. Associated with intense headache are extreme apathy and a facial expression of great pain. On the twelfth to the fourteenth day the symptoms disappear, the temperature drops, and the patient feels perfectly well.

The average blood count is from 9,000 to 11,000; the average differential count showed 69.4 per cent. polymorphonuclears, and 30.6 lymphocytes. As for the Widal reaction, in not a single case was a positive reaction obtained, even though the test was done daily in most of the cases. Blood cultures were persistently negative, and attempts to isolate a specific micro-organism from feces and urine were also unsuccessful.

In a second report one autopsy is recorded. This showed absolutely none of the characteristic lesions of typhoid fever, and gave no specific picture. The lesions found were the congestion and parenchymatous changes of a severe toxemia.

The clinical similarities between Brill's disease and typhus fever are so striking that Brill says: "In the case of an epidemic of typhus fever, in my opinion, it would be simply impossible to say that these cases were not mild typhus fever. From the clinical aspects no lines of demarcation can be fixed." However, this disease was not virulent, was constantly present in New York, was not communicable; and, until typhus fever was shown to have been so changed by its environment as to have acquired these characteristics, Brill was decidedly of the opinion that his disease must be other than typhus.

About one year later Louria reported 18 cases of the disease from Brooklyn, and his conception of the disease is that it is merely attenuated typhus. Friedman, in the same year, in a critical clinical review of endemic and sporadic cases of typhus in Russia, concludes that these cases and Brill's are absolutely identical, and Cheinisse holds the same opinion regarding some cases he saw in France. Brill, however, in a subsequent note again states that he does not think his disease is typhus fever. The writer of this review has seen cases in Chicago, and is of the opinion that they are typhus fever.

Thus the matter rested on purely clinical grounds until Anderson and Goldberger applied experimental methods to the study. Struck by the clinical similarities between Mexican typhus, which they were investigating, and the disease described by Brill, they attempted monkey inoculations with blood of patients suffering from Brill's disease. Brill had already made unsuccessful efforts to transfer the disease to monkeys, but Anderson and Goldberger succeeded in their attempts. In monkeys successfully inoculated, after an incubation period of five to fourteen days, a rapid rise of temperature ensued, falling by rapid lysis or crisis after about nine days. An eruption was never seen. The disease thus produced in monkeys by inoculating the blood of a human could be transferred

from monkey to monkey, and in one case it has been carried through fifteen generations. Having shown that the Rhesus monkey is susceptible to Brill's disease, Anderson and Goldberger next attempted to study the relationship between this disease and Mexican typhus. In a most striking series of perfectly controlled experiments they demonstrated that monkeys, which had recovered from an inoculation with blood of Brill's disease, were immune to subsequent infection with Mexican typhus, and vice versa, monkeys which had recovered from Mexican typhus were immune to Brill's disease. They conclude that "the disease described by Brill is identical with the typhus fever of Mexico, and inasmuch as the New York strain is undoubtedly of European origin, we may also conclude that the typhus of Europe and the tabardillo of Mexico are identical."

Later, Brill reviews the work of these two men and considers their conclusions too far-reaching. He argues that while Anderson and Goldberger have shown that Brill's disease and typhus fever are related, they have not proved their identity. In support of this contention reference is made to recent work at the Pasteur Institute by Metchnikoff and Besredka, showing that chimpanzees immunized against paratyphoid are immune to typhoid. Everyone knows that whereas these two diseases are closely related clinically and etiologically, they are not identical. Furthermore, the well-known reaction of immunity against variola by inoculation of vaccinia virus is evidence that the production of immunity to one disease by another is not proof of their identity. Brill's opinion then is that the disease described by him is very closely related to typhus fever, but that proof of their identity is still lacking.

The mode of transmission of the disease was studied by Anderson and Goldberger in connection with their similar investigations of typhus fever. They showed that both body lice and head lice are capable of transmitting the infection, but their work does not prove that this is the only possible method.

Whether the disease be mild typhus fever or a new clinical entity similar to typhus remains to be demonstrated. But its close relationship to typhus makes it imperative for the medical profession to be on the lookout for the disease and for Boards of Health to demand that it be reported.

Surgery

Walter McKeown, Herbert A. Bruce, W. J. O. Malloch, Wallace A. Scott, George Ewart Wilson.

Spinal-Cord Surgery. C. A. Elsberg, New York (*Journal A. M. A.*, October 26.)

In the course of more than sixty spinal operations he has observed a number of lesions within the substance of the cord which seem amenable to surgical treatment. This led him to investigate the frequency of such lesions and to attempt to develop a technic for their treatment. He is convinced that under proper treatment and with proper technic it is feasible and safe to incise the cord substance so as to allow the extrusion of localized intramedullary growths, to drain cysts in the substance of the cord, etc. He is at present experimenting on animals, and hopes in the near future to report some valuable results. Intramedullary tumors are not as rare as has been supposed, and in rare instances they have been operated on, but no well-worked-out methods have as yet been elaborated. Knowledge, as complete as possible, of the anatomy of the cord is the first essential of knowing where to make the incision with the least risk. Elsberg describes the anatomy, and concludes that in the lumbosacral region an incision may be made anywhere in the posterior column, but best a few millimeters away from the median line and not too near the posterior root zone, lest it damage the marginal fibers. The deeper the incision the greater risk of injury to the higher lumbar roots. In the dorsal and cervical regions the incision should always be made in the posterior median column, and the higher the level the nearer to the median line. In the upper and middorsal regions the incision is best made from 2 to 4 mm. from the median line, while from the level of the midcervical region upward it should be made very near the median line, preferably in the posterior median septum. In rare instances, it might be necessary to incise the cord on its anterior aspect, and a small cut through the anterior fissure and into the anterior gray horn should not cause a great amount of motor or sensory disturbance. Aspiration of the cord can be done with safety, provided that only the finest aspirating needle is used and that care is taken not to injure the very fine blood-vessels which enter the cord from the arachnoid. A very fine von Graefe knife

is the best instrument for the incision. The pia-arachnoid should always be first incised and carefully grasped with fine forceps; then the proper site of the posterior column is selected and an incision of less than 0.5 cm. long is made. It should be carefully deepened and enlarged, care being taken that it should be in the axis of the cord, which is best done with a blunt instrument. In the case of an intramedullary tumor the incision can usually be made into the most bulging part of the cord. No attempt should be made to enucleate it unless it is superficial and small; it should be left to extrude and be removed later by the method previously described by Elsberg. Great care must be taken to avoid hemorrhage and any injury to the cord; its substance should never be grasped by the forceps, and sponging should be done very gently, so as not to exert any pressure. After removal of the extrusion, one may attempt to suture the delicate edges of the pia by a few extremely fine silk sutures. When the anterior surface of the cord has to be incised it can usually be done after section of one posterior root. The cord can be gently lifted by the divided root and partly rotated on its own axis to bring the anterior column into view. A complete laminectomy (three spinous processes and laminae removed at least) is always needed with a thorough exploration and examination of the cord, and the pia and the dura are incised separately. While difficulty may at first be experienced in differentiating the cord substance from the capsule of the growth, in most cases it can be easily recognized. Careful palpation of the cord will often enable the operator to tell the pressure of a solid tumor or a fluid accumulation. Eight cases are reported, some of them briefly. The article is illustrated.

Manual Extraction of Placenta.

Rogoff (*Monat für Geburt. and Gyn.*) reaches his conclusions from 973 cases of extraction of placenta, from 1901 to 1911, in the Moscow Hospital. The uterus or abdomen should not be massaged after the birth of the child, as it interferes with normal contraction and relaxation. Two hours is not too long to wait and interference should not be undertaken earlier unless there is indication for it. Crede's method should always be given a trial before introduction of the hand. In the Moscow hospital patients are given a douche of bichloride, iodine or lysol solution immediately after the delivery of the placenta, which is kept up if there is the slightest odor to the discharge.

THERAPEUTIC NOTES

Delirium tremens.—S. Walter Ranson: That of the drugs used in the treatment of delirium tremens—morphine, chloral, bromides, scopolamine, whiskey and ergot, ergot has proved of the greatest value. Of the fluid extract of ergot give drachm doses every four hours. Combine with this hot baths and liquids.

Sea-Sickness.—A. T. Brand (*The Lancet*) has drawn attention to the value of reflex stimulation of the vagus centre and its vicinity by vesication over the par vagum between the mastoid and the angle of the jaw. Beneficial effects are produced in cardiac, respiratory and gastric affections. He suggests this treatment in *mal-de-mer.*

Chorea.—Eustace Smith (*The Lancet*) says ergot of rye in the treatment of diseases of the nervous system is of long standing. It was a recognized remedy in epilepsy in 1881. He became acquainted with it first in the early "seventies." Smith urges the importance of giving ergot in substantial doses in chorea if any good result is to be obtained. He has found no appreciable effect from small doses.

Fistula in Ano.—A. W. Elting (*Annals of Surgery*) reports 105 consecutive cases. Of these 96 were non-tuberculous and 9 tuberculous. Of the latter, 7 had pulmonary tuberculosis at the time of operation. Of the total number of cases, 64 were in males, and 41 in females. The essential features underlying the cure are: (*a*) The severance of the communication between the bowel and the fistulous tract; (*b*) the removal of the diseased portion of the bowel, including the fistulous opening. It is often necessary to perform a widespread and destructive dissection and removal of the fistulous tracts. By the application of the Whitehead principle cures can be effected without injury to the sphincter and no subsequent loss of sphincteric function.

Primary Pyelitis in Infants.—J. T. Fotheringham (*Can. Med. Ass'n Jour.*) says there are two requirements as regards treatment of this affection: Abundance of fluid by the mouth, increasing the quantity of urine and reducing its acidity. Second, a simple alkali, the best being citrate of potash, in doses of 25 to 180 grains in the twenty-four hours. The urine will clear and the constitutional symptoms will disappear as early as four and often not later than seven days. The alkaline treatment should be persisted in for two weeks. Usually disinfectants are not required.

Parasyphilitic Nervous Diseases.—Jadassohn (Corr. Bl. F. Sch. Aersto.) says that specific treatment should be employed in every case of tabes and general paralysis, provided there are no distinct contra-indications. It should be employed early, as the best results are likely to follow. It is not rare for parasyphilitic and true syphilitic diseases to be combined. Mercury, iodides and Salvarsan should be combined in the treatment. First give small doses and gradually increase them. If Salvarsan be given continuously the danger is no greater in parasyphilis than in syphilis itself, and not greater than in mercury.

Arteriosclerosis.—T. D. Coleman (*J.A.M.A.*) says prevention of the condition is the best treatment. Worry, overwork, excesses of all kinds are to be shunned, as is the strenuous life. Properly adjusted massage is valuable where active exercise cannot be taken. Baths are of distinct value; and the physical and mental activities properly adjusted to the needs of each individual case. As most persons eat too much and too fast, the diet should be directed. Alcohol, coffee, tea, tobacco should be restricted, and even forbidden in some cases. Mercury may be used in syphilitic cases and nitroglycerine may be safely used to advantage, or it may be preferable to use the nitrites owing to their less transient action.

Acute Articular Rheumatism.—Lemoine (*B.M.J.*) believes that as inflammation of the throat is one of the first symptoms, it should be treated with 20 grams of sodium salicylate in 1,000

grams of distilled water. He prescribes this drug internally in cachets as follows: Sodium salicylate, 0.60 grams; sodium bicarbonate, 0.40 grams. For the adult from 6 to 8 grams should be given in the 24 hours. For children under two years, one gram in a day; 2 grams if four or five years. It should not be given if nephritis with casts is present, and with caution if there is slight albuminuria. Aspirin is less efficacious, and should be administered in divided doses up to 1 to 3 grams in the day according to age. The dose of pyramidon is 0.50 to 1.50 grams. If improvement does not take place rapidly, these remedies may be combined. Painful, swollen joints are best treated with mesotane-vaseline, 20 grams; lanoline, 20 grams; mesotane, 5 grams.

Drop Method.—Eberhard (*Am. Jour. Gastro-Enterology*) thus describes the technique of nutrient feeding per rectum by the drop method:

The rectum and colon are first cleaned with warm normal saline solution. The head of the bed should be elevated and the nutriment, warmed to the body temperature, is placed in the inner can surrounded with water at a temperature of 110°—115° F. in the larger can. The flow should be regulated to a drop a second and it will require about one to one and a half hours for ten ounces of milk and two raw eggs to flow into the bowel—and when necessary the water in the larger can can be changed several times. This drop method is valuable in acute inflammations of the stomach with persistent vomiting, recent hemorrhage, hyperesthesia of the stomach, stenosis of esophagus or pylorus, late carcinoma of stomach, pernicious vomiting of pregnancy.

Angina pectoris.—Fiessinger (*The Lancet*) recognizes six forms arranged in order of decreasing gravity. 1. Disease of coronary artery; 2 and 3, aortic disease and myocarditis; 4, angina of interstitial nephritis; 5 and 6, angina of aerophagia and obesity. Treatment is considered under the headings of general and particular for each form: 1, Administration of nitrites and morphine; 2, prolonged rest in bed—on the value of which he insists; 3, small meals of one dish every two hours, so that seven are taken in the day. Thus stomach distention is avoided. Usually

immediate improvement occurs. In only one form is little benefit derived from the treatment—angina of syphilitic disease of coronary arteries. This, of course, requires specific treatment. During attacks, theobromine and trinitrin are the best remedies. Whatever the cause, iodide of potassium in gramme doses is useful; and this remedy should usually be given for twenty days a month. Angina due to myocarditis usually ceases with dilatation. Rest in bed for a month is the best treatment for relief of pain. Where angina occurs in persons whose weight is above normal immediate effect is secured through diet. Where it is due to aerophagia, small meals should be prescribed, followed by bicarbonate of soda and some absorbent powder.

Infantile Constipation.—C. G. Grulee (*Jour. Mich. State Med. Soc.*) states the indications for treatment to be stimulation of the bowel musculature, best brought about by suppositories, which act mechanically by irritating the rectal sphincter. Changes of food and massage may be added to this treatment.

Hemorrhage.—Levison (*Interstate Med. Jour.*) arrives at the following conclusions:

1. The term of hemorrhagic disease of childhood includes a number of conditions and diseases in which the hemorrhage dominates the clinical picture.
2. These conditions have not been accurately classified, because the etiology and pathology are not yet worked out.
3. It is probable that there are a number of bacterial organisms, any of which may produce this hemorrhagic condition in childhood.
4. The chemistry and mechanism of blood coagulation is not yet settled.
5. The efforts to check hemorrhages by means of calcium, gelatine, adrenalin and styptics have been unsatisfactory.
6. The use of animal serum rather than human serum has not been successful.
7. Human serum never produces toxic results.
8. Human serum should be invariably used in all hemorrhages of childhood.
9. A liberal amount should be used, and it should be continued a short time after the hemorrhages have ceased.

Psoriasis.—J. M. Winfield (*J. A. M. A.*) believes this disease is an expression of some disturbance of metabolism rather than of parasitic origin. Assuming intestinal intoxication as a factor in its causation, he has been treating patients for some years with lactic acid and colonic flushings. The lactic acid acts as a disinfectant in the alimentary canal. Of forty cases, twenty-three cases were cured and sixteen much improved.

Pertussis.—John Zaboosky (*Interstate Medical Jour.*) reports 40 cases of whooping cough, treated in private practice, in which he used a pertussin bacterin prepared by Parke, Davis & Co. He comes to the following conclusions: Pertussin bacterin in doses of 30 to 50 mm. is a very helpful therapeutic resource. It should be given hypodermically every three or four days in infants from the very beginning; in older children at the height of the disease. It is questionable whether it hastens immunity.

Diet in Typhoid Fever.—The *Journal of A. M. A.* says, editorially, the employment of a more liberal diet, consisting of 4,000 calories and upward per day, in the management of typhoid fever has received prominence as the result of the painstaking researches of Shaffer and Coleman. They have reported an excellent outcome with relative absence of relapses. The daily use of a quart of milk, a pint of cream, six or seven ounces of milk-sugar, several eggs, toast, butter, cereals, potato, custards and apple sauce, provides enough to satisfy an ordinary healthy man. Clinical experience has shown that patients do well on this diet; and one may be assured that this so-called "high calorie diet" has been rationally selected. Meat is excluded; easily digestible carbo-hydrates are abundant; fats are liberally administered.

Reviews

The Physician's Visiting List—1913. Price, $1.25. Philadelphia: P. Blakiston's Son & Co.

For sixty-two years this visiting list has held an honored place in the medical profession. Many have used it year by year to the exclusion of all other methods of book-keeping. The usual valuable information as to incompatibility, physician's dose-table, etc., is incorporated. Once tried, we believe no physician would do without it.

W. B. Saunders Company, medical publishers, are now established in their new building on West Washington Square—an ideal site right in the heart of Philadelphia's new publishing centre.

The remarkable success of this house and the rapid growth of their business, with the increased facilities which this growth demanded, necessitated removal to larger quarters. They therefore erected a seven story building, housing all their departments under one roof. Constructed of reinforced concrete, the building is absolutely fireproof and equipped with every modern aid for the manufacture and distribution of medical books and for the comfort and convenience of their employees. A cordial invitation is extended the profession to inspect the new plant.

Collected Papers by the Staff of St. Mary's Hospital, Mayo Clinic, Rochester, Minnesota, 1911. Philadelphia and London: W. B. Saunders Co., Publishers. Canadian Agents: J. F. Hartz Co., Limited, Toronto.

To those who are familiar with the wealth of clinical matter which has before appeared, from the staff of this now world-wide clinic, little is needed by way of introduction to this further contribution, embodied in one large volume of over six hundred pages. To merely scan the table of contents is sufficient to immediately arrest one's attention. The alimentary tract, genito-urinary system, ductless glands, thorax and extremities; also papers on technic and general papers are full of matter to claim the closest attention of the student of medicine, be he graduate or undergraduate. To those engaged in clinical teaching the work is especially valuable; in fact, it may all be summed up in a few words: Not criticism but praise.

Dominion Medical Monthly

And Ontario Medical Journal

EDITED BY

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Psychiatry: Ernest Jones, W. C. Herrman.
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Rhinology, Laryngology and Otology: Geoffrey Boyd, Gilbert Royce.
Gynecology: F. W. Marlow, W. B Hendry.
Genito-Urinary Surgery: T. B. Richardson, W. Warner Jones.
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COMMENT FROM MONTH TO MONTH

"Whither are we Drifting?" is a question which the medical profession may well put to itself at the close of the year 1912. That it has been a year of more than ordinary unrest few will deny.

In Canada there has been no clamorous uproar; but in the British Isles there has been a sullen and obstinate indignation over the National Insurance Act. Indeed, it does not take one to be gifted with second sight to accurately define the position into which the medical profession is rapidly advancing in the motherland. Nationalization of the profession there does not appear far off to the discriminating eye. The prospect is disturbing and the anxiety distressing.

In the United States the wail is over vanishing incomes. Graft has invaded the ethically sacred portals and the division-of-fee-system portends distressful times. The country is seething in quackery, and the dispassionate observer views the narrowing field of the regular practitioner with a disconsolate heart. The pursuit of gain is prosecuted with a dogged pertinacity, and the spirit of the age is mercenary to the highest degree. The land is over-run with charlatans. It is no fanciful dream to say they

have multiplied after their kind. Seeking new pastures green, many have migrated to Canada, and have spread themselves over the face of the Dominion, infecting our country in the year 1912 as it never was before.

Consider with this the great strides made in public medicine; the increased volume of business done by the patent medicine trade; the hospital extension and charity extension schemes; the high cost of living to the poor and middle classes—and the consequent strenuous truth that physicians suffer thereby in more unpaid bills—and the wonder is that our profession has anything left after eking out a precarious livelihood.

And yet, yearly grinds the mill, and one hears the continuous tramp, tramp, tramp of the new disciples of Aesculapius. Truly flattering prospects!

"To catch Dame Fortune's golden smile,
Assiduous wait upon her,
And gather gear by every wile,
That's justified by honor.
Not for to hide it in a hedge,
Nor for a trained attendant,
But for the glorious privilege
Of being independent."

Septic Sore Throat in the past few years has practically become a specific disease entity. It has been particularly observed and studied by numerous physicians, and some have published somewhat extensive papers thereon.

Louis P. Hamburger published a paper on "An Epidemic of Septic Sore Throat in Baltimore and Its Relation to a Milk Supply," in the *Journal of the American Medical Association,* in April last, and quite recently there has appeared an extensive study in the Public Health Reports, by Passed Assistant Surgeon, Wade H. Frost.

The clinical features as described by Hamburger were sudden onset with chill; irregular fever, sometimes surprisingly high; diffuse inflammation of the tonsils and peri-tonsillar tissue; enlargement of the cervical glands; unusual prostration; and a characteristically prolonged remittent course.

While the severity of the inflammation varied greatly, there were cases with a foul, pseudo-diphtheric exudate covering tonsils and fauces; while one of the marked features to be found was persistent enlargement of the cervical glands.

Next to the adenitis, otitis media was the most common complication, while some cases presented general septicemia, septic arthritis, erysipelas causing early death.

Cultures showed a diplostreptococcus, resembling the pneumococcus.

As with a similar outbreak in Boston in 1911, this was traced to the milk supply.

It is interesting to know that commercial pasteurization of the milk was the method of pasteurization applied in the dairy which supplied practically all the families in which the cases occurred.

In the Baltimore outbreak not less than 1,000, and perhaps as many as 3,000 cases occurred, causing thirty or more deaths.

In the Boston epidemic, in May, 1911, there were at least 1,000 cases, about fifty resulting fatally. Unpasteurized milk.

Another epidemic occurred in Chicago in the winter of 1911-12, also traceable to the milk of a single dairy.

Two items stand out prominently in connection with these studies: This new or heretofore rare disease, " septic sore throat," should be placed on the list of notifiable diseases. All milk should be scientifically pasteurized, held at a temperature of 145° F. for at least twenty minutes.

Editorial Notes

THE NATIONAL INSURANCE ACT

At a representative meeting of the British Medical Association held in London, Nov. 19th and 20th, the following resolution was passed by an overwhelming majority:

"That, in the opinion of this representative meeting, the regulations issued by the Insurance Commissioners and the latest proposals of the Chancellor of the Exchequer are unworkable and derogatory to the profession. As a consequence, the medical profession declines to undertake service under the Act and Regulations as at present constituted."

TUBERCULOSIS AND TELEPHONES

So far as is definitely known the tubercle bacillus has been recovered from a telephone swab but once. Prof. Klein found this in 1908 after examining a number of transmitters. In 1905 he had undertaken to conduct these investigations, but failed to find either the tuberculosis or diphtheria bacillus. Spirta recently confirmed these investigations, and although his experiments extended over a year, he did not recover the tubercle bacillus in one instance. Some instruments used were in a hospital for consumptives by patients actually suffering from the disease. Spirta concludes "that the transmission of tuberculosis through the medium of the telephone mouthpiece is practically impossible."

BANQUET TO DR. ADAM H. WRIGHT

Dr. Adam H. Wright, late professor of obstetrics in the Medical Faculty of the University of Toronto, was the guest of honor at a complimentary banquet in the York Club Friday evening, 30th November, tendered by his colleagues and friends, and he was the recipient of a sterling silver service presented by Dr. E. E. King on behalf of Dr. Wright's friends.

The large dining-room of the club was filled with many of the

leading professional men of the city. Dr. Beemer, Superintendent of the Mimico Asylum, presided, and Dr. A. A. Macdonald and Prof. Cameron occupied the vice chairs. Others at the head table beside the guest of the evening were:—Col. A. E. Gooderham, Prof. Lang, Mr. John King, K.C., Dr. C. K. Clarke (Superintendent of the Toronto General Hospital), Prof. Vander Smissen, and among those who spoke were Col. Gooderham, Mr. King, K.C., Prof. Baker, Dr. R. A. Reeve, Prof. Cameron, Dr. Temple, Dr. A. A. Macdonald, Dr. Sheard and Dr. King. One of the interesting features of the function was the reading of an ode to Dr. Wright by Prof. Ellis. The address of presentation accompanying the sterling silver service was signed by all present, and was read by Dr. Fotheringham.

THE TROUBLES OF TELEPHONE GIRLS

Dr. George M. Gould (*Med. Review of Reviews*), on Eye-Strain and Occupational Diseases, quotes the Report of the Royal Commission of Canada, before which physicians from the University of Toronto were called to give their testimony as to the illnesses resulting from telephone-operating. These facts, conditions or diseases were found to exist: Reaching upward injuriously affects the nervous system; nervous debility; faces showed indications of weakness on account of strenuous employment; eye, ear and throat all strained; nervous hysteria; constitution and nervous system injured; wearing down of nervous system; optic and auditory nerves strained; debilitating to the nervous system; girls burn up more energy than they produce; most exhausting of all occupations; injurious to eyesight; produces headache looking at the holes; prevents rest; cannot sleep when they go home; cannot eat well; reaching is hard and injurious; eye-troubles, headaches and nervous troubles; affects the eyes, and through the eyes the general system; the most trying of occupations; throat, chest and nervous troubles and headaches; nervous prostration and nervous breakdown; after three years unable to perform the ordinary occupations of womanhood satisfactorily; fainting; strain on nervous system through eye and ear; nerve fagged; nervous exhaustion; strain upon the optic nerve and muscles of the eyes; difficulty in fitting the plug in—they seemed to scrutinize it closely; the nerves governing the extra-ocular muscles which focus the eye

upon the object looked upon are the nerves where the greatest part of the strain comes; reaching added to the physical fatigue; when they leave they turn out badly in their future domestic relations.

It is this sort of thing which is laying the foundations of the asylums, and it is dealing with the question now that will prevent the building of asylums, and the loss of people to the community; not so much physical and mental as nervous, and exhaustion of nervous energy, a depletion of nervous force; the reason for such a marked increase in insanity and nervous prostration all over the country; after five years she would be disqualified to become a wife and mother; on future generations the effect will be epilepsy and all sorts of nervous diseases.

In other words, Gould says, brave statements of facts and end-results with no recognition of the single cause, ametropia, or eyestrain, from lack of scientific spectacles.

TRAFFIC IN HUMAN HAIR

The Medical Press and Circular writes as follows:

Traffic in human hair is growing extensively since fashion imposes the wearing of chichis on our fair sisters. China is the great exporter of hair, and the best market is New York, whither 282 tons were sent last year, representing £150,000. But Vienna, London, and especially Paris, are not much behind.

The hair from China does not come from the dead, as was often feared, but almost exclusively from hair falling during the toilette of the Celestials, collected with care by hair dressers and servants.

For many years the hair was exported in the "raw" state—that is to say, with no other treatment than the disinfection imposed by the sanitary service. But recently several manufactories have sprung up, one of which employs no less than 600 hands. Here the hair is combed and washed in a bath containing soda, black soap and ammonia; after drying in a current of hot air, the hair is plunged for twenty-four hours into a vat of boiling water. It is finally sterilised in an autoclave, and then receives the color desired, as there is very little use for black hair.

Some years ago the region of Limoges, in the centre of France, and some parts of Brittany were great markets for human tresses; the young peasant girls sacrificed, however reluctantly, their luxuriant hair against one or two hundred francs, but to-day the belles

prefer keeping the ornament nature has so richly provided them, and refuse the tempting offers. On the other hand, the market has considerably fallen on account of the competition from the East.

CANCER

The third clinical congress of the surgeons of North America, which closed lately in New York, requests all journals, lay and professional, to spread broadcast the following:

The Warning Signs of Cancer.

Any lump appearing in the breast should be at once shown to the family physician. The safest treatment is immediate removal; for the so called benign growths may become malignant or cancerous.

Of cancer of the womb, the first symptom in practically all cases is a slight discharge ("whites" or leucorrhea), with an occasional spot of blood. This slight streak of blood is seen usually after extra exertion at housework or lifting, after a long walk, or after a douche. Any such spotting of either the discharge or the clothing is a danger signal in a woman over thirty-five years old.

Cancer of the womb is, *in the beginning,* essentially a local process, and consequently can be permanently removed by operation. There are no grounds whatever for the belief that it is a "blood" or constitutional disease.

Over fifty per cent. of cases of uterine cancer are of the "neck" of the womb.

A certain authority on cancer, whose opinions are entitled to respect, has said that very often in the beginning stages of cancer of the womb, women will boast of their recent increase in weight and strength and perfect health; shortly afterward, however, this pleasant feeling is followed by an increasing mental and physical apathy, or lack of interest in the surroundings, and by a strong inclination to sleep.

When consulting your physician concerning the "spotting" of the clothing, insist upon a microscopical examination of a scraping from the womb. This is the only sure test. If it turns out that no cancer is present, your mind is set at rest, an ample reward for the slight trouble of an examination.

The only cure for cancer is thorough and complete removal of the affected part or organ. No pain is felt during an operation, and the risk to life is very slight. The occurrence of cancer in an organ is Nature's rather cruel announcement that she no longer needs that organ, which should be at once removed. In other words, cancer is a sign of degeneration.

Treatment by plasters is well known to the regular medical profession and is used for very small growths. In larger cancers the application of plasters is terribly painful and an open wound is produced, unsightly and dangerous.

No internal medicine, or so called "blood purifier," clover, prickly ash, burdock, wintergreen, poke root, iodide of potash, or their combinations, has ever cured a cancer. If any growth ever disappeared after the patient had been taking such a mixture, that is sure proof that no cancer existed.

Place no faith, therefore, in the statement of friends concerning their own experiences, or concerning cases known to them, where cancer was cured by any other method than by complete removal by a surgeon. They are mistaken, and one of the most extraordinary things about mistaken people is their insistence that they are right; the less the likelihood of their being right, the more emphatic and angry they will become. People do not lose their tempers over absolutely proved facts.

SCIENTIFIC LESSON FROM THE ATTEMPTED ASSASSINATION OF FORMER PRESIDENT ROOSEVELT

My Dear Sir,—I beg leave to call your attention to a plan to lessen or prevent crime and other abnormalities, especially such as the attempted assassination of former President Roosevelt. This plan of study is suggested in enclosed leaflet.

I have been advocating this plan for many years in the Congress of the United States, State Legislatures, large cities and in Legislatures of other countries. The idea is to establish laboratories or bureaus for the scientific investigation of criminals and other dangerous abnormals. I believe that every large city, every State and especially Federal Governments should have such a laboratory, which is just as necessary as a Health Department, if not more so.

> When any one sends to the President, the Governor, Mayor, or any prominent citizen, threatening letters, or repeatedly utters threatening words, or attempts to injure such persons, or is unreasonably insistent in demanding to see them personally, such individual should be detained at least a few hours and thoroughly studied by the scientific experts in criminal anthropology, psycho-physics and social pathology.

By such study of dangerous, unbalanced and often illusioned persons, who may be called mattoids, their eccentricities and peculiar behavior under varied conditions can be determined to such an extent that we may detect them in advance. At present it is almost impossible to do this, because of little or no knowledge concerning them. This ignorance is due to want of systematic scientific sociologic investigation.

Millions of dollars are annually expended by Governments for the scientific investigation of the antecedents, peculiarities and behavior of some bacillus, causing the death of plants or animals, but little or nothing is given for a similar study of the larger human bacillus, which has caused nations to suffer losses beyond human calculation.

Who can estimate the injury and cost to the world of the assassination of rulers or attempts to assassinate them? Shall we wait until more Kings, Presidents, Governors, Mayors, or other distinguished citizens lose their lives at the hands of assassins, before we begin scientific study of such dangerous individuals?

I would suggest, therefore, that all nations adopt some such plan as is indicated in enclosed leaflet, so that there may result an international protection from criminals, especially those dangerous to rulers and other prominent persons.

I shall be very grateful for anything you can do to further this plan, and should be glad if you will honor the work by publishing this letter in your Journal.

Trusting that such work meets your approval, I have the honor to remain,

Most respectfully,

ARTHUR MACDONALD.

"The Congressional,"
Washington, D.C.,
November 1st, 1912.

News Items

Dr. J. N. Roy, Montreal, has gone on a tour of Africa.

Dr. Shirriff, Medical Officer of Health, Ottawa, has resigned.

Dr. Charles W. Vipond, Montreal, has returned from a trip to Florida.

Dr. J. P. Cade has been appointed health officer of Prince Rupert.

Cape Breton is to have a sanatorium for the treatment of cases of tuberculosis.

Dr. A. Lome, Sydney Mines, has been elected president of the Cape Breton Medical Society.

Syphilis and gonorrhea have been made notifiable diseases by the State Board of Health of Michigan.

Dr. Howard A. Kelly is working actively in the crusade against the social evil in Baltimore and other cities.

Dr. W. W. Chipman, Montreal, was elected vice-president of the Clinical Congress of Surgeons of North America.

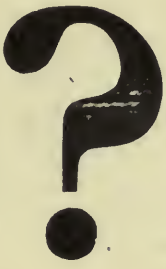
London, Ontario, physicians have established the following charges: Day visits, $2.00; subsequent visits, $1.50 to $2.00; night visits, $3.00.

Dr. Chas. Clouting, editorial writer, New York, and well known in Toronto and Montreal, sailed for London on the 11th of December for a two months' visit.

From January 1st to September 31st, 1912, there were 189 cases of typhoid fever reported in Toronto; for the same period in 1911, 385 cases; same period in 1910, 588 cases.

Montreal is to have an Eastern Hospital on the lines of the Western Hospital of that city. It is to be established by the Jewish people and manned by Jewish doctors, but will be undenominational.

Dr. Reginald S. Pentecost, late Senior Resident Surgeon New York Eye and Ear Infirmary, New York City, Post-Graduate Diploma University of Vienna, has opened offices at 90 College Street, opposite the new General Hospital, for the practice of diseases of the ear, nose and throat.



Are you particular as to the condition of the iron in your Blaud preparations?

Frosst's Perfected Blaud Capsules present True Ferrous Carbonate.

Each 10 grain Capsule contains, approximately, 1 grain of Iron.

Charles E. Frosst & Co., Montreal.

Publishers' Department

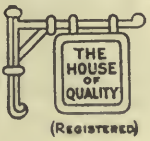
Dr. W. E. Hamill, medical broker, who conducts the Canadian Medical Exchange, for the purchase and sale of medical practices and properties between vendors and vendees, informs us that at no time during the past eighteen years that he has been conducting this business has he had such an inviting list of offers for sale as at the present time. Most of the practices are located in the Province of Ontario, but he has many in New Ontario, Manitoba, Saskatchewan and Alberta. Bona fide buyers who will agree to treat confidentially information received from the Medical Exchange can get full data of any offers on the books with names and locations and secure a short cut to the goal desired free. Besides the practices he has for sale, he also has a number of locations without a doctor, where the inhabitants have petitioned him to send them a doctor and where population and area without opposition would warrant anyone in doing at least $3,000 a year cash. A letter to 75 Yonge Street, Toronto, will show you just how he conducts this business.

Flatulence.—Professor Boas, of Berlin, an internationally recognized authority, has pointed out (*Berliner Klinische Wochenschrift,* 1910, No. 3) that individuals differ markedly with respect to their tolerance and digestion of the various food-stuffs, and that while milk, eggs, rare meats and potatoes are perhaps particularly apt to cause fermentation, no definite rules for the dietetic treatment can be laid down.

An absolute requirement and a never varying factor in the treatment of fermentative flatulence, however, is the employment of a desirable anti-fermentative drug, *i.e.,* a drug which can be given in large doses and over long periods without injury to the system, above all without producing constipation.

Magnesium Salicylate meets all these requirements, presenting the combination of a high percentage of anti-fermentative principle (92 per cent. Salicylic Acid) and sufficient laxative principle (8 per cent. Magnesium) to counteract the constipating and thereby cumulative effect of Salicylic Acid.

Magnesium Salicylate in the form of 5 grain Tablets, No. 224 "Frosst" may be given in doses as high as 30 grains three times per day.



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Our prices are moderate, and entirely in keeping with the class of goods that we sell.

Ermine Sets—$75 to $750
Mink Sets—$60 to $800
Black Lynx Sets—$115 to $400
Persian Lamb Crown Sets—$12.50
Black Pony Coats—$85 to $150
Ladies' Fur-trimmed Hats and Toques.
Persian Lamb Sacques—$350 to $550
Hudson Coney Seal Sacque—$75 to $150
Ladies' Fur-lined Cloaks—$75 to $150
Men's Fur-lined and Coon Coats—$50 to $500
Men's Fur Caps and Gauntlets—$3.50 to $50

Silk Hats, Derbies, Soft Hats, Hat Boxes, Travelling Bags, Gloves, Canes and Umbrellas, Mounted Heads, Fur Rugs, Carriage, Motor and Sleigh Robes and Rugs.

Fairweathers Limited,

84-86 Yonge Street, Toronto

MONTREAL - - - - WINNIPEG

In cases where the patient remains obstinately too thin, in spite perhaps of the ingestion of large quantities of "nutritious diet," we are faced with an urgent problem, especially when we find that the food induces dyspepsia, and thus sets up a vicious circle which it is hard to break. Preparations such as cod liver oil are apt to be resented by the alimentary tract, and many which are not nauseous are too bland and insipid to induce an adequate digestive reaction. But, as Dr. Osler and many others have insisted, the key to the treatment of phthisis and many other diseases is the state of the alimentary canal, and we are frequently liable to find ourselves in an impasse when forced feeding causes the alimentary canal to be a barrier instead of a gateway.

In these circumstances a solution of the difficulty is found in the results of the new researches on Bovril. It has been shown that here we have a nutrient; indeed, something more than a nutrient, which promotes or compels the absorption of other foods.

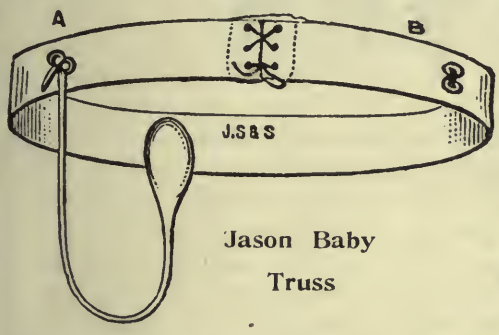
A Systemic Boost.—It is safe to say that the average physician is called upon to prescribe a tonic more frequently than any one other form of medication, unless it be a cathartic. Patients who are patients solely because they are tired, "run down" and generally debilitated, are constant visitors at the physician's office. Such individuals need something that will boost them up to their normal point of resistance and then hold them there; in other words, not a mere temporary stimulation, with secondary depression, but a permanent help to the revitalization of the blood and a general reconstruction. Pepto-Mangan (Gude) is not only prompt in action as an encourager of appetite and better spirits, but is also distinctly efficient as a blood builder and systemic reconstituent. It is pleasant, non-irritant, free from constipating effect and does not stain the teeth. It is thus a general constitutional tonic of positive service in all conditions of general devitalization.

Pituitrin in Difficult Parturition.—Every physician who has any considerable obstetrical practice owes it to himself and to his patients to familiarize himself with the oxytocic function of Pituitrin. Here is an agent which, according to reports in the medical journals of the Old World (notably of Germany)—

THE STEVENS COMPANY

FOR THE

BEST SURGICAL INSTRUMENTS



Jason Baby Truss

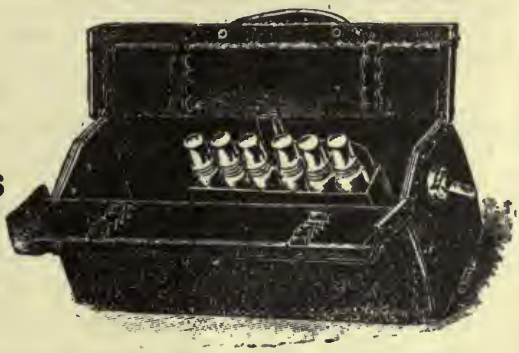
"The Jason Truss"

This truss, made of best Para rubber, specially prepared to offset the effect of urine, is the only truss suitable for babies. Can be washed and kept cleaner than any other. Try one on your next case. Made in singles and doubles. Sizes 10 inches to 21 inches.

Obstetric Bags
Emergency Bags
Medicine Cases
Vial Cases

Our line of leather goods is worth while considering when you need anything in this line.

Send for Catalogue.



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Instrument Cabinets, Bowl Stands, Irrigating Stands, Dressing Receptacles, Small Instrument Tables, Examination Tables and Chairs.

We supply Furniture finished in White Enameled Steel and Quarter-Cut Oak—any finish.

Don't order till you get our prices.

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145 Wellington St. W. - TORONTO

if obstetricians adopt it generally, as now seems likely—is destined to rob childbirth of much of its pain and terror. What shall we say of such an agent that fails but once in over a hundred cases in which it is used? And that is just what happened in Dresden, according to a report of Vogt, of the Royal Gynecological Clinic of that city. Vogt adds: "It was not necessary to have recourse to forceps in a single instance in which Pituitrin was employed."

For the benefit of physicians who are uninformed on the subject, it may be said that Pituitrin is an extract of the posterior or infundibular portion of the pituitary gland. While in use for a number of years—chiefly, perhaps, as a hemostatic and heart stimulant—it is only of late, comparatively speaking, that its value in uterine inertia has been fully understood. The product is prepared and marketed by Parke, Davis & Co., to whom inquiries should be addressed for further particulars of this remarkable agent. Not very long ago the company issued a pamphlet in which a number of interesting and surprising case reports were published. We understand that copies of this Pituitrin pamphlet are still available and may be obtained upon application to Parke, Davis & Co., at their offices in Walkerville, Ontario.

Meat Juice.—The great point of value in this preparation is the large quantity of free albumen it contains, being considerably richer in this most valuable constituent than other preparations of a similar character. It has also a much more agreeable flavor than that of most of our competitors, many of which are by no means palatable, in some cases even nauseous, thus rendering it of special value when administering it to children or delicate patients whose taste is sensitive or capricious.

It is recommended for use in all cases where enrichment of blood is required, as in anemia, etc., and also to replace loss of blood through accident, after operations, confinements, etc. It has also been found of great value as a constituent of nutrient enemata.

It is best administered with an aerated water (as plain and unflavored as possible), when it will be found to be readily taken by even young children, as the action of the aerated water "breaks up" the Meat Juice and renders it very pleasant to the taste.

Laboratory Tests of

BOVRIL

The stringent experiments made at the School of Physiology, Dublin, proved:

1.—That Bovril possesses remarkable feeding power;

2.—That it enables the system to extract more nutriment from ordinary diet than without its use;

3.—That these two qualities give Bovril a body-building power of from 10 to 20 times the amount of Bovril consumed.

"They Fail to Understand"

The habit of catching cold is acquired by the habit of wearing woollen garments next to the skin. Flannels are weakening, a weakened skin is like an open door for colds and chills to enter.

All who have worn Dr. Deimel undergarments for one winter wonder at the change for the better which has taken place with them. **They fail to understand** how they could ever have worn wool next to their skin.

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We also sell the Dr. Deimel Linen-Mesh Supporters

It may also be taken in plain or filtered water, as the doctor may direct.

The dose for an adult is one teaspoonful in a wine glass of plain or aerated water; for children smaller quantities in proportion to age, or under the doctor's directions. About ten to fifteen drops in the infant's bottle with its ordinary food has been followed by very beneficial results, in the case of a weak, ailing or anemic child. For brain fag, exhaustion from over-study, late hours, etc., or owing to excessive heat, a teaspoonful of Brand's Meat Juice in a wine glass of soda (or other aerated water) will be found a splendid restorative and "pick me up," beneficial results following immediately on drinking.

The Sanol Manufacturing Co.,
838 Wells Street,

Gentlemen.—I beg to draw your attention to the fact that I have suffered from Diabetes Mellitus for four and a half years. The disease made such progress that on July 1st, 1912, I had to resign the superiorship of this hospital. I was always sleepy and tired, tormented by an excessive thirst, grew weaker and weaker and felt nervous and irritated. I heard of Sanol's Antidiabetes and began the cure on the 24th of July. The sugar abated after a few days and only showed up occasionally in slight traces. After a few weeks I felt like a new man altogether. The thirst was normal, the drowsiness left me, my feet did not hurt any more and my condition had so wonderfully improved that I began to hope for becoming completely cured. I am happy to say that this cure is a fact to-day. I eat and drink anything and live like an ordinary person. I had my water analyzed regularly in order to have a minute control on the percentage of sugar. The fact cannot be disputed that I actually suffered from Diabetes and that I am perfectly cured through Sanol's Antidiabetes.

Bro. Peter Vesper.

Have made the sugar analysis referred to above and will say that the sugar in the urine decreased from 4½% to nothing, and all within five weeks time. Since that time for six more weeks it has remained free.

A. H. Fisher, M.D.

Dominion Medical Monthly

And Ontario Medical Journal

Vol. XL. TORONTO, FEBRUARY, 1913. No. 2

Original Articles

CESAREAN SECTION—WITH THE REPORT OF TWO SUCCESSFUL CASES*

BY J. P. KENNEDY, M.D., SURGEON TO THE WINGHAM GENERAL HOSPITAL.

The first Cesarean section in America was performed by Dr. John L. Richmond, at Newtown, Ohio, on April 22nd, 1827. Dr. Richmond states he arrived late in the evening at a new, unfinished cabin, surrounded by flooded, low land, seven miles distant from his home. There was no floor nor chimney in this cabin, and the spaces between the logs had not been chinked, so that blankets had to be held up to keep the wind of the stormy night from blowing out the candle. Two midwives were present, ministering as best they could to a young woman who had been in active, but ineffectual, labor for thirty hours. Uterine contractions were frequent and forcible, each ending in a convulsion. Exhaustion and a failing heart were evident. From the scant stock of medicines which he had brought, and with such means as the cabin afforded, he at once set about to give relief from this condition. Examinations revealed a deformity of the soft tissues of the birth canal, which rendered delivery by the natural passage impossible. Distance, the storm of the night, the flooded country and the late hour made aid from other doctors unavailable. Thus alone, weighed down by the sense of such responsibility, as can be known only by experience, for the safety of the two lives entrusted to his keeping, he studied and mentally struggled and prayed, and finally decided that only immediate Cesarean section afforded any hope for either mother or

*Read before the Huron Medical Association, Dec. 12th, 1912.

child. This operation had not been done in America. He must have been aware of the fact that in Europe the mortality had ranged from sixty to one hundred per cent. His experience in abdominal surgery was very limited. The use of ether as a general anesthetic was not discovered until nearly twenty years later, and antiseptic and aseptic technique had not been heard of. His equipment was an ordinary pocket case of instruments. He operated deliberately, and, as need arose, with courageous discrimination he decided that a childless mother was better than a motherless child, and acted accordingly. Anxious to know the true nature of the obstruction, he made bi-manual examinations with a freedom which shocks our ideas of aseptic precautions. He closed the wound with stitches and adhesive straps, allowing for drainage at its lower end. The child was lost, but the mother recovered, and went about her accustomed work on the twenty-fourth day, and five weeks from the day of the operation she walked a mile and back. Such was his achievement. During the nineteenth century, Cesarean section labored under the disadvantages of both a traditional and sentimental prejudice due to its early history. The enormous mortality attending the operation before the era of antiseptic and aseptic surgery made it one of doubtful expediency, to be advocated only in cases where the birth of a living child was believed to be impossible, and only to be resorted to after all other forms of delivery had been tried. As a consequence, it was performed upon women exhausted with other attempts at delivery; often after infection from repeated manipulation at the hands of several physicians, and with no, or at least incomplete, asepsis.

Twenty years ago the surgeon who had successfully performed one or more Cesarean sections was justly entitled to distinction. Now, this operation may be performed three or four times a day in a large metropolitan hospital service without causing any particular comment. Formerly, it must have been easy to decide in which cases these operations should be done, for it was held to be justifiable only as a last resort, when the birth canal was so obstructed that the child could not be delivered, even piecemeal. To-day, Cesarean section is an operation of election, in many cases coming into competition in difficult labors with other forms of operative delivery, such as high forceps, accouchement forcé, etc.

What members of our Association here, with a large obstetrical practice, have not repeatedly had not only a dead baby, but an invalided or a dead mother, following the high-forceps operation? Many authorities at the present time have scarcely any doubt of the ultimate substitution of other methods of delivery for that of

high forceps. Reuben Peterson, of Ann Arbor, goes so far as to say that, "The time is coming when the operation of high forceps will not be taught in our medical schools as an obstetrical operation." He is convinced that Cesarean section gives far better results. McPherson, consulting surgeon of the New York Lying-in Hospital, says: "If the physician undertook Cesarean section with the careless technique and lack of asepsis often used in high-forceps operations, the mortality would be appalling. Many forget that the successful use of high forceps in delivery needs greater technical facility on the part of the operator than is demanded for most other operative procedures. The serious sacrifices of life, relaxations and displacements of pelvic organs, the tears of the birth canal from forceps are in most instances inexcusable." There is still a tendency to adopt Cesarean section only after examinations by several physicians, and when all other methods have been tried and failed. Adopted in such cases, the operation stands a small chance of being successful, the patient succumbing to exhaustion or infection. The results of Cesarean sections vary according to the time, in reference to labor, the operation is performed. Reynolds said, in the analysis of two hundred and eighty-nine cases, that where the operation was performed prior to labor the mortality was 1.2 per cent., while late in labor 12 per cent. of the patients died. Routh, of London, has perhaps furnished the most convincing figures. From his list of one thousand two hundred and eighty-two cases, he found that where there has been repeated vaginal examinations, or where attempts had been made to deliver by means of the forceps, the mortality was 34.3 per cent. When the patient was in labor and the membranes ruptured, but with no attempts at delivery from below, the mortality after Cesarean section was 10.8 per cent. When the patient was not in labor, with the membranes ruptured, the mortality was 3.6 per cent., and when the patient was in labor, with the membranes unruptured, the mortality was 2.2 per cent. These figures can signify but one thing: that repeated examinations and attempts at delivery mean sepsis, and this in turn means high mortality, no matter whether the classical or other varieties of Cesarean section be performed.

There are two or three factors of paramount importance determining the success of these operations.

First.—Proper and sufficiently early ante-partum examination of the patient. In all primiparæ, at least, the pelvic measurements should be taken with the pelvimeter, and recorded, and a proper examination made to ascertain if there be any obstruction in or deformity of the birth canal, some time before labor is expected.

Second.—If the measurements or the vaginal examinations indicate any possibility of or necessity for Cesarean section, when labor begins, as few examinations should be made as possible, and these examinations should be made under the strictest aseptic precautions, preferably using gloves.

Third.—Freedom from previous attempts at delivery. It is now conceded that where, from the results of a proper ante-partum examination, Cesarean section has been decided upon at the onset or before labor, a 2 per cent. mortality is all that is to be expected. With such a low mortality as this, and with the increasing perfection of surgical technique, are we not justified, or even compelled, to decide between a clean, rapid abdominal section in preference to the slow, dangerous and oftentimes unsatisfactory or mutilating high-forceps delivery.

The indications for this operation at the present time may be enumerated as follows:

First.—Deformed pelvis.

Second.—Disproportionately large child.

Third.—Placenta previa.

Fourth.—Eclampsia, with partially dilated cervix, complicated or not by other causes.

Fifth.—Neoplasms of uterus, such as fibroids, carcinomata, etc.

Sixth.—Vaginal deformities, such as tumors or marked contractions from scars.

McPherson says: "The general shape and contour of the pelvis is as important an indication for Cesarean section as the measurements of the conjugate vera, for we now know that such irregularities as those of the Robert's type, on account of the lateral contractions of the sides, also render delivery by the vaginal route impossible, although the true conjugate may be longer than usual."

It can be readily understood, too, that even in cases where there is no malformation, and the true conjugate is normal, there may still remain the factor of disproportion of the size of the child to be born, necessitating possibly a Cesarean section in order to obtain a living child. And, upon the contrary, it is quite conceivable that a proportionately small child may be delivered through an abnormally small pelvis. About a year ago we had in our practice a case of this sort, a primipara, with the following measurements:

Inter-spinous	22	cms. instead of normal	25 cms.
Inter-cristal	25.5	cms. instead of normal	28 cms.
Extr-conjugate	17.5	cms. instead of normal	20 cms.
Inter-ischial	9.5	cms. instead of normal	10 cms.
Pubo-sacral	11	cms. instead of normal	12 cms.

We were expecting to do a Cesarean section. So certain were we of operating that we invited a number of our professional confreres, who had expressed a desire to witness the operation. Much to our chagrin at the time and since, because we have been twitted about the matter by certain physicians, after being in labor for some hours, the head engaged in the pelvic brim, and my assistant, Dr. Calder, was able to deliver a small, but healthy, living child with the high-forceps operation. Practically all modern authorities agree that craniotomy is a brutal operation, causing not only the death of the child, but frequently that of the mother as well. In the only case in which I have resorted to craniotomy, I lost both mother and child.

Craniotomy is unjustifiable, except:

First.—Where the mother is exhausted by long labor, and undoubtedly septic from many vaginal examinations and futile attempts at forceps delivery.

Second.—Where the fetus is dead, or so feeble that it is not likely to live under any condition.

Third.—Where the fetus is a monster.

Fourth.—Where, from necessities of the case, either craniotomy or Cesarean section must be performed by unskilled hands, craniotomy is probably the safest operation for the mother.

And now, in conclusion, a few words on the technique of the operation. After the usual preparation of the abdomen with benzine and iodine, I have used a six-inch incision, three inches above and three inches below the umbilicus, through the right rectus muscle. Some of the authorities are advising that the incision be made wholly above the umbilicus to avoid adhesions between the abdomen and uterine wounds. In my cases I have been able to draw the omentum down over the uterine wound, so that there has been small chance of adhesions. I think, too, that my using a continuous Lembert for the uterine wound would obviate any danger of this complication. After opening the abdomen, a long gauze roll, wrung out of hot salt solution, is packed around the uterus to wall off the intestines, and prevent the amniotic fluid from gaining entrance to the abdominal cavity. My second assistant then presses the abdominal wall firmly against the uterus while I make a longitudinal incision into the uterus, to be enlarged either with a knife or scissors. The placenta, if presenting, is pushed aside, or may be cut through, a leg grasped and the child extracted. In my last case, as it was a breech presentation, I grasped the shoulder and extracted the head first. While handing the child to a sterile nurse, and clamping and cutting the cord, my first assist-

ant grasps the broad ligaments to control the hemorrhage, and delivers the uterus through the abdominal wound, while my second assistant places a towel, wrung out of hot salt solution, across the incision for the uterus to rest upon, and to prevent any danger of skin contamination. I now extract the placenta.

My needles being already threaded with No. 2 chromic catgut, I inserted deep interrupted sutures through all the uterine tissues excepting the mucosa. The hemorrhage is now practically all controlled. I, however, insert a few superficial interrupted catgut sutures, and the peritoneal surfaces over the entire wound are brought together by a continuous suture of catgut, analagous to the intestinal Lembert sutures. The abdomen is closed in the usual way. The operation is not especially difficult to any surgeon doing abdominal surgery. The secrets of success are to do the operation before the patient is exhausted from long, continued labor, before she is infected by repeated examinations or manipulations, to have competent assistants, and to employ the strictest aseptic precautions in operating. We cannot expect a surgeon to do a successful operation for strangulated hernia, where the hernia has been down and strangulated for three or four days, nor a successful appendectomy where the case has been allowed to run on, the appendix rupture and general peritonitis develop. Uniform success in these acute abdominal infections demands early operation, operation inside of twenty-four or thirty-six hours. Nor must we expect any surgeon to do a successful Cesarean section if the patient is exhausted, as I have said, after repeated examinations and exposure to infection, after futile attempts at delivery with high forceps.

The after-treatment is the same as for any other laparotomy, or, for that matter, after the first few days, any other puerpural patient. I have performed the operation twice, and in both instances was able to save both mother and child.

My first case, already reported in the Dominion Medical Monthly, was a patient, Mrs. C., primipara, age 31 years, of Star City, Sask., who consulted me at my office, June 25th, 1909. Six years before this she had an abdominal operation performed in Montreal, the nature of which she did not know. She had been married eleven years, had one miscarriage in July, 1908. She had menstruated last on February 11th, 1909. In the West, she was informed that she was pregnant, by her family physician, but that it would be impossible for her to give birth to a living child at full term. As I had been her physician before marriage, she decided to come East and consult me. I found her pregnant, and having a contracted pelvis, with the following measurements:

Inter-spinous	21	cms.
Inter-cristal	25	cms.
Extr-conjugate	17.5	cms.
Inter-ischial	7	cms.
Pubo-sacral	10	cms.
Diagonal conjugate	9	cms.

I decided to keep her under observation and await the onset of labor, thinking perhaps that, if the child were small and presentation normal, she might be delivered *via naturales*. She had no untoward symptoms during her pregnancy. I had expected her to be confined along about the 18th or 20th of November. Beginning labor was delayed, however, until the 26th of November. On the evening of that day I was telephoned for, and saw her about 8 p.m. I found that she had been in labor for eight hours. Vaginal examinations showed little, if any, dilatation of the cervix. At 11 p.m. there was slight dilatation, although the pains were getting severe. At 5 a.m. the next day, as the pains were getting very severe, with little dilatation of the cervix, and as the head had not engaged in the pelvis, I decided to wait no longer, but to act while the patient was in fair condition and strong. I accordingly had her removed at once to the Wingham General Hospital and prepared for Cesarean section. With Dr. J. E. Tamlyn as anesthetist, and Drs. Margaret C. Calder and W. G. Hutchison as assistants, I operated in the usual manner. The entire operation took thirty-six minutes. The after-history of the case was uneventful. There was primary union of the abdominal incision, and the patient nursed the baby from the first. Both patients are still alive and well.

The second patient, Mrs. A., of London, was a primipara, age 32 years. Having formerly been her physician before marriage, she decided to come up from London and place herself under my care at the time of her confinement. She menstruated last normally the first of November, 1911, and in the usual course of events I had expected that she would be sick along about the first week or ten days in August. Labor, however, did not set in until the third of September. Her pelvic measurements showed contraction laterally, simulating the Robert's type of pelvis. Her measurements were as follows:

Inter-spinous	20	cms.
Inter-cristal	25.5	cms.
Extr-conjugate	18	cms.
Inter-ischial	10	cms.

I was called to see her about 5 p.m. on September 2nd, and found that she had been having slight pains since noon, and upon examination discovered that the membranes had ruptured, that it was a breech presentation, and that there was very little dilatation of the cervix. I had her removed to the hospital and kept under observation. Her pains gradually grew more severe during the night. At 4 o'clock the following morning I decided to do a Cesarean section, for the following reasons:

First.—Patient was undoubtedly one month past her normal period for delivery, and I consequently expected to have a correspondingly large child.

Second.—Pelvic measurements showed a transversely contracted pelvis of the Robert's type.

Third.—There had been premature rupture of the membranes, and consequently a dry labor.

Fourth.—A breech presentation, and the breech had not become engaged in the pelvis, after the patient had been sixteen hours in labor.

Dr. Adams being the anesthetist, assisted by Dr. Calder, I performed a Cesarean section in the usual way, and delivered the patient of a child weighing over nine pounds. There was not the slightest complication following the operation, and the patient left the hospital in three weeks in splendid condition. She is in perfect health at the present time, and has a beautiful, healthy child which, I am satisfied, could not have been delivered alive *via naturales.*

Thorium-X.—This new agent is attracting attention in Germany. J. Plesh (*Ber. Klin. Woch.*) reports a case of leukemia and also one of pernicious anemia, with very marked improvement. It was administered by intravenous injection.

Tabetic Gastic Crises.—Hochenegg (*Deut. Zeitschr. f. Chir.*) believes that the cause of these in some cases of locomotor ataxia to be disease of the pneumogastric or nucleus, and advises section of the nerve. He performed this operation in two cases, the nerves being divided below the diaphragm, just above their ramification. The relief was satisfactory in one case, but not in the other.

Medicine

Graham Chambers, R. J. Dwyer, Goldwin Howland,
Geo. W. Ross, Wm. D. Young.

Modified Cow's Milk as a Substitute Food in Infant Feeding

The subject of modified milk as a substitute food for infant feeding has been studied from many points of view, but two facts are being recognized more and more as of prime importance: First, that cow's milk is the most practicable substitute food for infants, and second, that it is just as important that the physical characteristics of cow's milk be modified as to the proportion of its food elements.

It is along these lines that First Lieut. W. E. Fitch of the Medical Reserve Corps, United States Army, has written a most practical paper upon the subject of "Modified Cow's Milk as a Substitute Food in Infant Feeding," published in *Pediatrics* (October, 1912). He studies the comparative chemical composition of healthy woman's milk and cow's milk, the general availability of cow's milk as a substitute food, the physical and chemical differences between cow's milk and woman's milk, and the modification of cow's milk with cereal decoctions.

He emphasizes the necessity of using pure cow's milk, not milk that has been pasteurized or sterilized, but fresh, wholesome milk from a healthy herd. We all recognize the fact that the milk offered for sale in the large cities is not as pure as it should be, but under the active work of the Boards of Health and the medical profession, it is rapidly improving in quality. When procurable, certified milk should always be used.

Dr. Fitch points out the fact that the modification of cow's milk with a cereal is a mechanical one, due to the gelatinized starch, which changes the hard-curdling cow's milk into a soft-curdling milk, like human milk. The casein of cow's milk clots in hard, lumpy masses in the infant stomach, the digestive enzymes cannot get at it, and any means whereby we can break up the clot and make it more flocculent will increase the digestibility of the milk; and this can be done by the use of a properly prepared cereal decoction.

Not only do cereals modify the casein of cow's milk, but they, also, through their gelatinized starch, facilitate the digestion of

fats by emulsifying the fats after proteid digestion in the stomach. This is important because, as Holt shows, the tendency to-day is to give a large percentage of fat, and the fats of cow's milk are more difficult to digest than the fats of human milk. With many infants it is often necessary to begin with an amount less than 2 per cent. of fat, and rarely is it necessary to exceed 4 per cent. There are numerous healthy infants who cannot even digest 4 per cent. of fat at any time, and many who, during the hot weather, do better on a reduction to 3 or 3.5 per cent.

Theoretically, the child under six months, because of the deficiency of salivary and pancreatic secretions, is said to be incapable of digesting starches. Practically, this is not true. Nearly every fluid in the human economy has a diastatic ferment, and, as a matter of fact, the very young infant does digest starch. We have seen too many babies successfully fed on arrowroot to deny this fact. The author quotes Finkelstein, of Berlin, whose experience and general sound judgment are respected by the leading pediatricians of the world, who is emphatic that very young children are capable of digesting starches, and quotes favorable published opinions by Jacobi, Epstein, Schmid, Minard, Keller, Newman, Heubner, and others, while our own Kerley has conclusively shown by his experiments at the New York Infant Asylum that "there is no age limit for cooked starch feeding."

The addition of cereals to cow's milk is not only allowable, but is to be most warmly recommended, not only in older, but also in very young infants. The advantages of cereal modification, in addition to the readier digestion and gain in weight, are to be found in the finer subdivision of the casein in the stomach, in the emulsification of the fat, in the disappearance of soapy and dyspeptic stools, in the proteid-sparing power afforded by the cereals, and finally, in the general increment of growth.

This is the experience of the leading pediatrists of the world. Not every infant, by any means, can take cow's milk, or ass's milk, or goat's milk; but starch foods may be added with benefit to cow's milk in the majority of cases, is established beyond all question, experimentally, chemically and clinically.

Dr. Fitch then considers the practical details of cereal modification, and gives formulas for milk mixtures, based on years of successful use. He gives, also, clinical reports upon a number of cases had with these formulas.

The article is an exceedingly clear and practical consideration of the much-befuddled question of the modification of cow's milk for infant use, and, best of all, it contains usable information.

The Acute Stage of Poliomyelitis

H. M. McClanahan, A.M., M.D., Omaha (*Journal A. M. A.*, October 22), discusses this subject in detail. He says that treatment of the acute stage has received scant consideration. If we can do nothing to modify the disease, certainly we can do something for the patient, and until specific treatment is discovered it is the duty of the physician to institute proper treatment to meet the indications in the average case. Isolation of the patient can do no harm to the individual and may protect others in the family. To my mind it is more important than rigid quarantine. The advice of the family physician is usually accepted, hence if he advises the mother at once to isolate the patient he has adopted the best measure to prevent the extension of the disease to others. If a mistake in diagnosis is made no harm can possibly result. If during local epidemics of this disease, such as prevailed in 1909 in Nebraska and during 1910 in Iowa, physicians everywhere would adopt this course many cases might be saved from exposure.

The important principle of treatment is elimination. This includes thorough depurative action on the bowels, for which McClanahan recommends castor oil, the ingestion of a liberal amount of fluid to promote excretion from the kidneys, the use of remedies to stimulate diaphoresis, a liquid nourishing diet and proper regulation of the temperature and ventilation of the room.

If the child refuses to drink enough liquid to keep up free elimination from the kidneys, then warm salines by the bowels should be given. To stimulate the skin nothing equals a hot pack. This is also of benefit in the polyneuritic type. If properly applied this is agreeable to the child, and it is always important to have the child's voluntary co-operation. A soft, white blanket, lightly wrung out of hot water (if there is evidence of stupor it should be wrung out of mustard water), is wrapped snugly about the child. A dry blanket should be wrapped over this—not a muslin sheet which absorbs water. The child should be encouraged to drink while in the pack. Some children will drink freely of grape-juice when they will not take water. When removed from the pack they should be gently rubbed dry and placed between blankets until perspiration has ceased.

The diet during the acute stage includes milk, plain, diluted or modified; buttermilk, broths, and, if there is much gas, some of the modified cereals, sometimes a poached egg, toast when properly made and fruit juices. Toast to be easily digested should be made from bread well dried, slices cut thin and heated through.

The fever seldom requires special attention, and when it does, sponging or a cool enema most safely meets the indication. Coal-tar derivatives should be avoided entirely. As a routine treatment McClanahan recommends the use of hexamethylenamine (urotropine). It is generally well tolerated by the stomach. Certain types of the disease require special consideration. By the cerebral type is meant cases beginning in a stormy way with fever, delirium or stupor, muscular rigidity, etc. It usually happens that these symptoms subside in two or three days, and if the physician has called it cerebro-spinal meningitis he begins to doubt his diagnosis. Lumbar puncture is now recognized as the only positive method of early diagnosis, but is also useful as a therapeutic measure.

In the polyneuritic type, with cutaneous hypersusceptibility, morphine may be required, at least in some cases. Relief can often be attained by the use of a suppository: Powdered opium, gr. ½; extract of belladonna, gr. ⅛; sodium salicylate, gr. 5; oil of theobroma enough for one suppository. One suppository is to be inserted every three hours until relief is attained. Here again the hot pack, as above described, will sometimes give relief. When the stomach will retain it, sodium salicylate is of benefit.

The mortality in this disease is chiefly from the involvement of the medulla, leading to respiratory failure. I think it is well to remember that this complication will occur in any type of the disease; hence such symptoms as shortness of breath, pallor of the skin with slight cyanosis of the lips, unwillingness to talk and an anxious countenance, should warn the attendant of approaching danger. Oxygen might be of benefit. If McClanahan should again see a case of this type he would do a lumbar puncture, on the theory that the bulbar paralysis might be due to pressure and that the withdrawal of fluid would tend to relieve this pressure.

Poliomyelitis from a Neurologist's Point of View

B. Sachs, New York (*Journal A. M. A.*, October 22), states that our views of the treatment of this condition have undergone a radical change. It will not do for the physician to sit idly and state that "there is little to be done." The disease calls for patient and intelligent treatment with prospect of reward. The entire aim of treatment, Sachs says, is mildly to stimulate the nerves and to exercise in one way or another muscles which cannot be exercised by will. This, he says, can be done by electricity, massage and by

active and passive exercises. He takes up in succession the proper form of electric treatment, the methods of giving massage, and emphasizes the importance of active and passive exercises especially in the earlier paralytic stage. He touches briefly on orthopedic treatment and states that as a rule much time is wasted in hoping for a return of normal conditions. If six months or a year after the onset of poliomyelitis a group of muscles shows considerable wasting, an absolute reaction of degeneration and no return of muscular power, it is useless to hope for spontaneous improvement. The orthopedist should then step in and attempt to correct the mischief done by the disease. He states that he knows of no drug which has the slightest effect on the spinal lesion or on the paralyzed muscles after the acute stage has been passed. While salicylates and mild narcotics will have to be employed in the earlier period of the disease, and even iodides and ergot may be administered in the earlier stages, there is no sufficient reason to exhibit these drugs in the paralytic and post-paralytic periods. For the relief of neuritic and muscular pains, give a combination of pyramidon, citrate of caffeine and aspirin, or aspirin alone, varying the quantities according to the age of the patient. If necessary, codeine may be added. Injections of strychnine or of arsenic are absolutely useless, he believes, though there can be no objection to the use of the ordinary blood and nerve tonics, provided the practitioner keep in mind that he is attempting to improve the general condition of the patient and is not endeavoring directly to effect a change either in the spinal cord lesion or in the paralyzed nerves and muscles. In conclusion, he insists that intelligent gymnastic exercise of the paralyzed or weakened limbs is the method to which one should pin one's faith, and from personal experience he states that the physician who directs these exercises intelligently, and who will direct them patiently, will have no reason to regret the time devoted to this cause. In recent epidemics the disease has been of such varying intensity that we have no right to claim that any case is a hopeless one, and much can be done by properly directed therapeutic efforts.

Surgery

Walter McKeown, Herbert A. Bruce, W. J. O. Malloch, Wallace A. Scott, George Ewart Wilson.

The Treatment of Syphilis, from the Viewpoint of Recent Investigations. By John M. Thompson, A.B., M.D., Boston.

The physician who is conversant with the principles and keynote of the modern healing art, and contemplates the exemplary services rendered during the past two years in the interest of syphilology, cannot fail to be struck with wonder and surprise. That so many eminent authorities in the field of etiology should have been disposed to pursue such persistent investigations in the effort to determine the particular organic compound of arsenic or other synthetic product capable of destroying the spirochetæ of syphilis, surely, must arouse the interest of the general reader.

While assured there was no reason to believe one should abandon the trust in mercury which five hundred years of crucial tests had confirmed, and held to be the only medicinal agent in our *materia medica* which could be regarded as a veritable specific, still the conviction entertained by so many eminent authorities in Europe and our own country compelled thorough investigation. Therefore, as a decision of the particular remedy of choice appeared to rest between mercury and that arsenical compound or synthetic product found to produce the best effects, naturally, it behooves me to bring to the reader's notice the conclusions reached by the most reputable authorities regarding the mercury preparation called *mergal.*

Among the several modified forms of mercurial medication brought to the attention of the profession of late, after cautious, practical experience, *mergal* deserves to be considered the remedy of choice, and is so regarded by eminent therapeutists. A typical synthetic product, it is composed of one part mercuric cholate and two parts albumin tannate. It is dispensed in capsules containing definitely gr. three-quarters of the former and gr. one and one-half of the latter. It is a yellowish white, loose, somewhat light powder, insoluble in water and alcohol, and almost insoluble in solution of sodium chloride. It passes through the stomach intact, and is decomposed into its constituents in the small intestine, where the mercury is quickly absorbed into the blood and excreted through the kidneys. It is indicated in all forms of syphilis, and in para-

syphilitic affections, such as tabes, general paralysis, and in the intermittent treatment of Fournier and Neisser.

As a general rule, the dose of *mergal* should begin with one capsule three times a day, continued for four or five days. On the sixth day, two capsules twice or three times a day, until ten capsules daily are taken, administered, as a rule, after meals, as thereby the best results are secured. The average patient should be treated along these lines for from ten to twelve weeks.

The reader, however, should entertain, also, a clear notion of the why and wherefore of *mergal*, and, in order that he may have an adequate conception of its therapeutic efficiency, it will be proper here to add a brief and explicit explanation of its peculiar properties.

Once convinced that mercury, as ordinarily prescribed, failed to be absorbed and assimilated to a degree sufficient not only to ensure the patient the full therapeutic value of the drug, but to prevent harmful and costly bi-effects, Overbeck and Gorup-Besanez entered upon a series of investigations, which proved that the liver was the "bone of contention," and retained a far larger amount of the drug than the other organs, and, therefore, deprived other parts of the economy from receiving their full and desired therapeutic portion.

From these facts, it became evident, if a form of mercury could be prepared, that had a close affinity to the biliary secretion, such form, after entering the alimentary canal, would undergo proper absorption, assimilation and distribution throughout the several parts of the animal economy, which must necessarily share in the destructive process resulting from the poisonous products of the syphilitic micro-organism and its products.

In addition to providing for the complete therapeutic action of mercury, it was necessary, also, to antagonize its corrosive effect in the digestive tract. This part of the problem found solution in the addition of *tannin albuminate* (with which mercury cholate possesses the closest affinity), serving as the proper adjuvant of the latter, previous to its expected therapeutic effect—a fact substantially borne out by the experience quoted below.

Apart from the employment of medicinal agents, in syphilis, however, it is hardly necessary to emphasize the importance of constitutional, supportive measures as adjuvants to *mergal*. And while detail is not called for, still it will not come amiss to mention such valuable helpmates as are certain to promote the work of reconstruction and to ensure the restoration of former well-being.

From the very start, the victim of syphilis must take home the fact that *mergal* helps those who are disposed to help themselves.

Owing to the general tendency of the disease to affect the skin, scalp, mouth, throat and eyes, it behooves the patient to adopt every precautionary means available in order to avoid probable involvement of any one or more of these parts. In short, he should observe regularity and temperance in work, sleep, diet, habits, rest, etc., and strive to the utmost to promote and preserve personal well-being.

The rank and file of physicians are compelled also to pay a proper amount of respect to the practical side of the problem of syphilitic treatment. Unlike the specialist of a large city, where abundant material is ever ready to serve him in administering as well as in determining the therapeutic value of a new remedy, the practitioner who must needs abide by existing conditions will find it awkward to give intramuscular and intravenous medication. On the other hand, what he desires is a remedial agent that will not cause pain, necessitate detention in a hospital, or prove an uncertainty in connection with injury to the eyes. Even though a longer time will be required in which to ensure desired effects, the physician must arrange to allow his patients to pursue their daily avocations, and still continue treatment to the desired end, by prescribing what fulfils every demand, and by all means does not jeopardize a patient's chances of performing each day's tasks. For these reasons, the physician can ill afford to employ the injection method, which compels personal visits to the office, an obligation often beyond the range of reason to expect patients to meet.

Now, it must be admitted that we have in *mergal* an ideal means of supplying the wants of both physician and patient; and I shall quote for the reader's benefit from Dr. Bolland, of the University of Graz, in order to confirm the truth of this statement:

"*Mergal* is superior to all other Hg. preparations that have hitherto been used internally, and in particular, on account of its safety and prompt effect; in these respects it scarcely yields to the inunction cure." (*Oestr. Aertze-Zeitung,* No. 2, 1909.)

Brunton remarks: "It appears that the metabolism of *mergal* is more regular than that of other forms of mercury, as might reasonably be expected from the scientific compactness of its structure —the compound of mercuric oxide with albumen is probably the form under which mercury . . . circulates in the blood." (*Pharmacology,* p. 684.)

Professor von Zeissl says: "I am convinced that in *mergal* we possess to-day an excellent preparation for the treatment of a large number of cases of even severe syphilis. And I can affirm with truth that it has so far been better tolerated by my patients than the

mercuric chloride or iodide, when these are given by the mouth." (*Med. Klinik,* No. 15, 1907.)

While it would be possible to acquaint the reader with the views entertained by many of our reputable syphilologists, I deem it sufficient to quote chiefly from the Nestor of all, from one who has devoted himself relentlessly and altruistically to the cause of syphilitic therapeutics no less than to that of human well-being. I refer to Dr. J. A. Fordyce who, while he appears disposed to believe that some arsenical synthetic product will be found to possess a quality indispensable to the removal of syphilis, recently reached the conclusion that arsenobenzol is not as yet deserving of a firmly established place in the *materia medica* of syphilology, and that satisfactory results from its employment have been observable only when Salvarsan, so-called, was combined with active mercurial medication.

He says: "The objections to its use are the pain which immediately follows the injection, the hospital care necessitated, and the present uncertainty in regard to its possible injury to the eye. Administration by the intravenous method entirely obviates the first objection, and it will, doubtless, be the method of choice in the future. It is, however, more difficult and requires more technical skill. If, by combining the mercurial treatment with Salvarsan, we can accomplish a cure of this infection in six months, and obtain repeated negative serum reactions, our views regarding the length of time that must intervene between the onset of this disease and marriage may be materially modified. *We are not yet, however, in a position to issue any dogmatic rules regarding this very vital question.*"

"Until we know more of the possibilities of the drug with regard to the eye, an attitude of conservatism should be preserved."

"Experience in the treatment of syphilis with the Ehrlich-Hata preparation has now been sufficiently extensive to enable us to draw certain conclusions regarding the effects of the drug and to cause us to modify some of the very enthusiastic early reports as to its curative properties. The impression so widely prevalent when Ehrlich first announced his discovery, that it would be possible with one dose thoroughly to eradicate the infection, may be true in a limited number of cases, but the relapses which have taken place in a certain percentage have proved that this opinion was premature." (Reprint from *Jour. Am. Med. Assn.,* Jan. 21, 1911.)

Fordyce also says: "In the primary and secondary stages of the disease two doses of Salvarsan, combined with active mercurial medication, materially shorten the duration of the disease." (Reprint from *N. Y. Med. Jour.,* May 6, 1911.)

In closing this paper, I cannot refrain from expressing my sentiments regarding the cause of experimental investigation, the results of which, naturally, concern each and every follower of Æsculapius, and to the extent that it would seem as if we could well afford to display more caution and better judgment in the future than we have been disposed to do in the past. Furthermore, while medicine still remains an art, there is no reason why we should fail to forget to profit by experience, and to abide by established precedent in waiting for the sanction of those authorized to determine when a remedy deserves therapeutic employment. For failure to entertain proper respect, on the part of the profession, in matters so sacred and serious, means arousing the suspicion and mistrust of the laity, the real significance of which I may readily allow the reader to interpret for himself.

While syphilis is a disease that calls for and yields to medicinal agents, the fact must not be lost sight of that it is chronic, malignant, and shows no special preference for one organ, or part, more than for another. Like tuberculosis, however, it runs an insidious, progressively devitalizing course, intent upon breaking down the body's internal defences.

Now, granting, as we must needs do, that disease is removed by a natural (*vis medicatrix naturæ*) rather than by an artificial or remedial process, it becomes plainly evident, there is little ground for believing that specific remedies have been, or ever will be, discovered. The physician, therefore, who strives to the utmost to promote and conserve the vital force, or disease-resisting powers, of his syphilitic cases, who does not claim virtues for drugs which do not possess them, and abides by the irrefutable principles of the new school, will have no occasion to regret the employment of *mergal* during the time that "Salvarsan" is being weighed in the balance—only eventually to be found wanting, in all probability.

Epistaxis.—*Med. Review of Reviews* says a strong solution of antipyrine (20 per cent.) on cotton is the most effective. Hydrogen peroxide is also good. In the habitual form, give hydrastis and hamamelis internally to prevent recurrence.

THERAPEUTIC NOTES

Lung Tuberculosis.—Balboni (*Boston Med. and Surg. Jour.*) considers that after eighten months' experience with artificial pneumothorax, this procedure has a place in the treatment of lung tuberculosis. He says it is justifiable to try any new treatment in tuberculosis of the lungs. This method of treatment has given good results.

Hammer Toe.—W. J. Merrill (*Am. Jour. Orthopedic Surgery*) transplants the extensor tendons into the metatarsal bone. This preserves the function of the muscle. It also prevents atrophy of it. The muscle pull raises the metatarsal head, lessens the tendency to one feature in the mechanism of hammer toe, and as well, often relieves an associated metatarsalgia. The flexors are implanted into the base of the first phalanx.

Pituitrin in Child-birth.—Malinowsky (*Zentr. für Gyn.*) says pituitrin seems to possess a happy combination of therapeutic qualities—utero-vasculo-heart tonic. In proper doses it has a prompt ecbolic action. One dose of 1 cc. was found entirely adequate. The maximum single dose which still gave good results was 1.3 cc. A half dose, as well as repeated small ones, exhibited a weaker action. The action begins in three to seven minutes after an injection. These injections are entirely painless. The duration of action of one dose is about an hour. It seems to act most favorably in the first and third stages, and is apparently without danger to mother and child. It seems to be contraindicated in heart and kidney diseases.

Obesity.—Galisch (*Med. Klinik, Berlin*) reduces the weight successfully in corpulent patients by a simple measure. He reduces the amount of food taken after mid-day. By this method the patient has less opportunity to build fat at night time. The appetite receives satisfaction at breakfast and noonday dinner. For supper, one small sandwich and a cup of tea or coffee is allowed. Work or exercise is prescribed for the afternoons. Of the patients treated in this maner, all lost one or two pounds a week. There was no weakening.

Eclampsia.—C. Holste (*Monat. für Geburt. und Gyn., Berlin*) says the essential feature of Stroganoff's treatment of eclampsia is the long-continued administration of morphine and chloral hydrate. Avoid all external irritation by quiet and darkening of the room; in some cases, chloroform; delivery by forceps or version in extreme cases. The dosage is as follows: Immediately 0.01 or 0.02 gm. morphine; one hour later, 1.5 or 2.5 gm. chloral hydrate; the third hour, 0.015 gm. morphine; the seventh hour, 2 gm. chloral, and the thirteenth and twenty-first hours, 1.5 gm. chloral. He discontinues the drugs as soon as marked improvement is noticed.

Measles.—D. I. Connolly (*Practitioner*) gives a hot bath, immediately followed by a thorough application of oil of eucalyptus, to the entire cutaneous surface, except the hands and the face about the nose, mouth and eyes. Irrigate the mouth daily with weak alum lotion, and apply glycerine and borax to the mouth and gums. Carbolic oil, 1-10, should be applied to the tonsils and fauces morning and evening. Each day for four days the patient should have a blanket-bath, morning and evening, and then another eucalyptus inunction. Connolly believes, by giving particular attention to the mouth and throat, that he is striking at one of the chief strongholds of the disease. Out of 160 patients so treated, there were eight deaths, a case mortality of 5 per cent. Seven of the deaths were due to gastro-enteritis, and one to meningitis.

Cardiac Tonics.—According to the *J. A. M. A.*, digitalis can have its place taken by no other drug, in loss of compensation in chronic valvular disease. It has its greatest success in the valvular lesions that cause enlargement of the left ventricle, although it also acts for good on the right ventricle, but has little action on the auricles. It is simply a question of muscle. The heart muscle being somewhat similar to other muscles, should be stimulated moderately at first, and not overworked. It should be "trained." Large doses, then, should not be given to overstimulate suddenly, as a rule. Strophanthus cannot be compared to digitalis, except when the glucoside, strophanthin, is administered subcutaneously or intravenously. Strophanthin given intravenously has been shown to save life. It acts quickly and has a lasting effect. Caffeine is indicated if digitalis is contraindicated, and when the patient is not nervously excited, but stupid or apathetic; also when diuresis is desired. Strychnine is a much over used drug, although it is a valuable stimulator and heart tonic when used properly. It promotes muscu-

lar activity of the heart much as it promotes all muscular activities. In the low blood-pressure of serious illness, such as pneumonia, it by no means raises the blood pressure. Strychnine is a general nervous stimulant, especially of the spinal cord. It is indicated when the heart is acting sluggishly and the contractions seem incomplete, and when digitalis either is not indicated or is not acting perfectly.

Gout.—George L. Kahlo (*The Therapeutic Gazette*) has employed atophan—a definite chemical substance discovered by Nicolaier, of the following formula: 2 phenyl-chonolin and 4 carboxylic acid—in 48 cases. All were in adult life. In every case of gout in its typical form the administration of atophan was followed by a reduction in temperature and a lessening of the pain and swelling within a very few hours, and in practically all by a complete subsidence of these symptoms in from twenty-four to forty-eight hours. A large majority of the patients had been treated by colchicum, the salicylates, aspirin, etc., and almost without exception they stated that the relief obtained from atophan was greater than that from remedies previously employed. Atophan is dispensed in tablet form, containing 7 1-2 grains. The dose varies from 30 to 60 grains per diem. In most cases, Kahlo prescribed after each meal and at bedtime.

Cirrhosis of the Liver.—Duckworth (*Practitioner*) says the gastric catarrh and intestinal sub-inflammatory conditions demand treatment. They are early symptoms of cirrhosis. Tartrate of sodium in effervescence, with a few minims of dilute hydrocyanic acid, is useful, given every six hours. In the diet, milk and arrowroot, or yolk of eggs and milk, he has found appropriate. Useful adjuncts are whey or curds and whey, and koumiss. If there is a tendency to vomiting, a mustard plaster to the epigastrium helps. For any irritability of the pharynx, bromide of ammonia will relieve. With the return of the digestive powers to the normal, the best treatment for the liver is full doses of ammonium chloride and liquid extract of taraxacum, flavored with liquid extract of licorice. This treatment should be spread over several weeks. When the digestive powers are weak, the following combination will be beneficial: Sodium bicarbonate, gentian, rhubarb, tincture of capsicum, with nux vomica. Strong liquors should be forbidden, and acquired vicious habits should be held in check. Over the hepatic region, inunctions of biniodide of mercury ointment may be employed from time to time.

Reviews

A Manual of Personal Hygiene: Proper Living Upon a Physiologic Basis. By Eminent Specialists. Edited by WALTER L. PYLE, M.D., Assistant Surgeon to the Wills Eye Hospital, Philadelphia. Fifth Edition, revised and enlarged. 12mo. of 516 pages, illustrated. Philadelphia and London: W. B. Saunders Company. 1912. Cloth, $1.50 net. Sole Canadian Agents: The J. F. Hartz Co., Ltd., Toronto.

This manual is the standard book on personal hygiene. In matters of human health and life conservation, mankind is just coming to know and appreciate itself. We are entering upon the era of preventive medicine; and public hygiene, as well as personal hygiene, are taking a position in the minds of the people they never did before. Personal hygiene is a subject which must be taught; it cannot be enforced; and there is no class in the community more interested than the physicians, and they must, in large measure, be the teachers. No matter where he is, he will be forever consulted, or oftener asked personal questions of this character. The need of a handy volume covering the whole range of personal and domestic hygiene must then appeal to him. This one fills the bill. This is the fifth revised edition. It is written in popular style, and technical phraseology has been altogether avoided as far as possible. The glossary will be found acceptable by the lay reader.

Building a Profitable Practice. Being a Text-Book on Medical Economics. By THOMAS F. REILLY, M.S., M.D., Professor of Applied Therapeutics, Medical Department, Fordham University, New York City. Philadelphia and London: J. B. Lippincott Company. Canadian Agent: Charles Roberts, 608 Lindsay Building, Montreal.

This book will be especially of interest to the beginner, or at best to those in the first decade of medical practice. No doubt experienced and successful practitioners will find in it much of value. The graduate, on going into practice, immediately encounters difficulties of every variety, which he was not taught, nor of which he even thought as a student. But a careful perusal of this book

will equip him in many essentials not found in text-books, noticed in lectures, or even hinted at in clinics. We can heartily recommend it to all beginners. Indeed, we would commend it to the student as the best time to acquire the invaluable information and experience it contains.

Surgery and Diseases of the Mouth and Jaws. A practical treatise on the surgery and diseases of the mouth and allied structures. By VILRAY PAPIN BLAIR, A.M., M.D., Professor of Oral Surgery in the Washington University Dental School, and associate in surgery in the Washington University Medical School. With 384 illustrations. St. Louis: C. V. Mosby Company. Price $5.00.

In the preface of this most interesting and instructive work, Professor Blair points out that "in spite of all the special work that has been done in the study of the teeth and allied structures, the ordinary standard of surgical treatment given to diseases and deformities of the mouth does not equal that attained in other regions. This is due largely to a rather general lack of reciprocity of ideas and observations between constructive workers in the medical, with those of the dental professions."

From the author's intimate association with the Washington University Dental School, and the Medical School of the same university, it is evident he has overcome the barrier of lack of reciprocity between these allied professions. Professor Blair, with the aid of his many assistants, has evolved a work at once exhaustive in subject matter dealt with, and replete with a wealth of illustration. He has evidently not been content to rely on the opinions of others (apart from those with whom he has been intimately associated) but has rather chosen to give to the profession the results of his abundant experience.

As a positivist of such large practical experience in his chosen field of observation, he should command the respect of our profession.

To merely mention the fact that this work embraced 44 chapters, together with 384 illustrations, should be a sufficient guarantee that the ground has been well covered.

One might devote many pages to the analysis and praise of this work did space permit. Suffice it to say, however, that such chapters as those devoted to plastic operations, malignant disease and tubercular adenitis, would in themselves amply repay the practitioner of medicine for the money spent on this book.

A Text-Book of Obstetrics. By Barlow Cooke Hirst, M.D., Professor of Obstetrics in the University of Pennsylvania. Seventh edition. Revised and enlarged, with 895 illustrations, 53 of them in colors. Philadelphia: W. B. Saunders Company. 1912. Canadian Agents: J. F. Hartz Co., Toronto.

In this new edition which has been brought up-to-date by a careful review of the current literature and incorporating whatever is considered useful and of permanent value is still a popular text-book for both practitioner and student.

The whole field of obstetrics has been gone over carefully, but it is still debatable in the reviewer's mind whether the combining of gynecological information is necessary in a book upon obstetrics. Gynecology is becoming more and more a surgical science, and the gynecologist without a sure foundation in the science and practice of surgery makes but a poor showing these days. The practitioner with a good surgical training which means a thorough knowledge of anatomy and pathology, will surely be a better obstetrician.

Outside of the mechanics of obstetrics a good surgeon will be a good obstetrician, as the complications of the puerperium are surgical chiefly. That the author feels this is shown in his extension of the article on diseases of the breast.

Aside from this viewpoint, one must congratulate the author upon compiling such an excellent book on the subject; containing as it does all the best of the recent researches it is a very valuable book both to the student and general practitioner.

Writer's Cramp.—Noehte (*Deut. Med. Woch. B.*) says treatment must be by psychotherapy, exercises in writing, first moving the arm loosely through the air. Then he must be trained to make straight marks. Then unite the simplest letters, stopping at the first fatigue.

Exophthalmic Goitre.—Eshner (*Med. Rec.*) has had best results from strophanthus, with or without bromides; rest. If these are unsatisfactory, resection. He says the hopes of adrenals and posterior portions of hypophysis have not been realized.

Dominion Medical Monthly

And Ontario Medical Journal

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COMMENT FROM MONTH TO MONTH

The Health Committee of the Association of Life Insurance Presidents was created about one year ago for the betterment of life insurance service, and the first report was submitted at the sixth annual meeting in New York in December last.

It is a sign of progressive times that life insurance corporations are eager to seize hold of what the advancement in public health offers, not only in the interests of policyholders, but in the public interest as well, and possibly greater dividends.

The keynote of this report is struck in a quotation in the words of Dr. John S. Fulton, Secretary General of the 15th International Congress of Hygiene and Demography: "Public hygiene is built upon and directed by, and is everlastingly in debt to vital statistics . . . Every wheel that turns in the service of public health must be belted to this shaft."

The need for better vital statistics is emphasized in the great movement—the greatest upon earth to-day—of the conservation of human life.

As policyholders are almost everywhere, their education in personal and domestic hygiene and in public health measures, will be bound to be beneficial to all communities.

Fraternal societies should be more interested and should commence to sit up and take notice, as their universal slogan is "protection to the home."

The Question of Compensation for Reporting Cases of Communicable Diseases is engaging the attention of Ontario physicians. The Provincial Government will be asked to recompense physicians by fee for being put to this trouble. It is thought in this way more complete returns will be assured, especially in the smaller municipalities and outlying districts.

This is compulsory work for the Registrar-General's Department, for which the physician is entitled to be paid.

Every man is entitled to the dollar or the quarter which he earns.

The trouble with the medical profession as a body is that they do not stand together as a body and are not aggressive enough in prosecuting their rights.

Marriage Certificates should engage the attention of the medical profession. There has been a suggestion that all marriage certificates should be issued by the clerk of the municipality, and a movement is being made toward that end.

Doctors issue birth and death certificates and are required also to report communicable diseases.

Why not place this power in the hands of duly qualified medical men?

If we are coming to the day when no marriage will be consummated unless the contracting parties present medical certificates of physical and mental fitness, surely the issuance of marriage certificates should go hand in hand with this much to be desired innovation.

It would be a decided step forward in eugenics in this province if the medical man was empowered to issue the marriage certificate, and as well issue the necessary medical certificate.

In Canadian soil, eugenics should take root and be nurtured; for have we not taken as our prototype of Canadian citizenship, a strong, robust vigorous man, Johnny Canuck. To that end we should produce and develop.

In these pages we have several times before advocated the issuance of marriage certificates by qualified physicians; and as it is along the right lines of the tendency of the age, our provincial medical society should not stand idly by and see the issuance of marriage licenses pass into other hands when it should be in those of the medical profession.

Editorial Notes

ANESTHESIA AND ANOCI-ASSOCIATION

At the recent Clinical Congress held in New York, Dr. George W. Crile, of Cleveland, discussed methods of anesthesia introduced by him. By these methods all harmful effects to both the sensory and sympathetic nerves were excluded. Dr. Crile compared the effects of different anesthetics in his series of 1,000 cases and showed that the methods used by him reduced the morbidity and also the mortality. In the Lakeside Hospital, Cleveland, the mortality rate for all operative procedures was 6 per cent. in 1898, 4 per cent. in 1908; under anoci-association methods it was reduced to 2½ per cent.

SCHAFER PHYLACOGENS

Under the title "Wonderful Health Guardians," *Pearson's Magazine* for January, has a popular article on the Phylacogens, as manufactured and marketed by the well-known house of Parke Davis & Co.

We have been furnished with copies of the correspondence instituted by Parke Davis & Co. when they learned Pearson's were to publish such an article in a then forthcoming number.

The correspondence clearly shows the publication of the article was discouraged by the manufacturers, as it was considered by them it would be derogatory to medical science, Dr. Schafer and themselves.

The publishers, however, took the view that what would be interesting and instructing to their readers counted for every thing with them.

It was Edgar Allan Poe, we think, who once wrote "that, in general, it is the object of our newspapers rather to create a sensation—to make a point—than to further the cause of truth. The latter end is only pursued when it seems coincident with the former."

We have always held that popular articles of a medical character appearing in the lay press, when published at all, should be by one versed in the particular subject in hand, as, if the public demand information along such lines, they are entitled to receive the same from the pen of one well qualified to indite it, and not by a scribe who makes feature writing a special branch of journalism.

It is pretty well recognized, however, that editors would rather have even scientific subjects written about by experienced journalists than by scientific men who are not journalists. But would their readers?

We do not see how this sort of thing can very well be prevented, either by the profession, the manufacturers or the scientist. Will it come to this, that the patient will dictate to the physician the particular line of treatment to be pursued in a given case?

OZONE AS A WATER PURIFIER

The Scientific American says: In many European cities ozone works have been erected for sterilizing the drinking water, and it is reported that satisfactory results are being obtained. Typhoid, cholera and dysentery bacteria are claimed to be destroyed by ozonization process, and as the process may be used on a small scale, portable apparatus adapted for domestic use may offer a field for useful invention.

SMALLPOX IN QUEBEC

To December 20th, 1912, there were 971 cases of smallpox reported in the Province of Quebec for the six months as follows: July, 106 cases; August, 103; September, 63; October, 119; November, 495; December, 84.

According to Dr. Elzear Pelletier, the Secretary of the Quebec Board of Health, these figures are only a small percentage of the cases, as many municipalities refuse to report their cases of contagious diseases.

THE PINEAL BODY

Leonard J. Kidd, in *The Medical Chronicle* for Dec., 1912, reviews the histological, experimental and clinico-pathological evidence on the subject of the pineal body. This is accumulated from 65 recorded cases. His conclusions are as follows:

(1) The facts of comparative anatomy, embryology, histology, clinico-pathology, and experimental physiology, point to the belief that the pineal body is functional in all those vertebrates which possess one.

(2) The pineal body is a metamorphosed organ; not a rudimentary, useless, degenerated, degenerating, or disappearing organ;

the phenomena, which have been urged in favor of the latter hypothesis, have been erroneously interpreted.

(3) The pineal body probably furnishes an internal secretion; the crucial test for this may prove difficult of attainment: it has not yet been attempted.

(4) So far as our at present imperfectly applied experimental studies have taught us, the pineal body of very young birds and mammals has an inhibitory action on the development of the testes and—probably through them—on bodily growth and the appearance of the secondary sexual characters.

(5) A relationship of the pineal body with the ovaries is suggested by certain experiments of Biach and Hulles, but has not yet received confirmation from those of Foa (1912).

(6) A relationship with the pituitary and the adrenal cortex is probable, with the thyroid and thymus possible; but on these points nothing certain is yet known.

(7) Histological studies seem to show that the pineal has at least one other function besides its pre-puberal one; the former goes on to extreme old age. We have no knowledge whether it begins only at puberty or at birth.

(8) A true partial involution of the pineal body occurs normally at puberty: its meaning is that the pre-puberal sexual function has come to an end: those pineal elements which subserve that function undergo involution because their special work is finished.

(9) The neuroglial and connective-tissue elements of the pineal body probably have definite specific functions, quite apart from their purely mechanical role; the pineal body may thus really have at least three functions.

(10) The future of pineal physiology lies probably mainly in the hands of the experimentalist and the analytical and physiological chemist, to a less degree with the pathologist, and possibly to some extent with the experimental embryologist.

We are not yet in a position to say how the pineal body functionates.

TORONTO AND TYPHOID

Toronto had 130 cases of typhoid with 25 deaths in 1902; in 1903, 156 cases, 35 deaths; in 1904, 133 cases, 41 deaths; in 1905, 197 cases, 45 deaths; in 1906, 259 cases, 63 deaths; in 1907, 186 cases, 58 deaths; in 1908, 201 cases, 60 deaths; in 1909, 331 cases, 77 deaths; in 1910, 739 cases, 151 deaths; in 1911, 520 cases, 81 deaths; to Dec. 26th in 1912, 276 cases, 54 deaths.

OPEN AIR SCHOOLS

The first experiment with outdoor schools for tuberculous children or those predisposed to this disease was made in Germany in 1904. According to the National Association for the Study and Prevention of Tuberculosis, there are in operation in the United States over 200 of these schools, all of which have been established since January, 1907, the first being in Providence, R. I. The association estimates that there should be one school in cities to every 25,000 of population. The results are said to be uniformly good.

SEICHES

This phenomenon was first discovered at Lake Geneva. The Swiss called the movements "seiches." Alfred J. Henry in *Bulletin No.* 262 *of the United States Weather Bureau* thus describes the rocking movements or seiches as observed on Lake Erie:

"It seems probable that the first effect of a strong wind upon the waters of the lake is to transfer from one end to the other sufficient water to disturb the condition of hydrostatic equilibrium which exists before the wind began. Shortly after the maximum force of the wind has been exerted, the lake tends to return to a state of equilibrium. The water that has been piled on the leeward shore of the lake will immediately recede, although the velocity of the wind may continue high for several hours, after the water falls. A condition of stable equilibrium is reached by a series of rockings of the water of the whole lake about a nodal line passing through the centre of the lake, the water at either end rising and falling alternately until a condition of rest is attained."

Thus it will be seen that the seiche movement is not a movement of translation, but an up and down movement—a "seesaw" movement.

CANADIAN MEDICAL PROTECTIVE ASSOCIATION

The eleventh annual report of the Canadian Medical Protective Association shows that that vigorous organization now has a membership of 795.

Dr. R. W. Powell, the President, in his annual report believes that the association should branch out by adding a sick insurance, seek incorporation, and as an essential requisite raise the annual fee. Progressive certainly, but a suggestion which should receive full and ample consideration.

The financial statement shows a cash balance in the bank of $8,651.21, with all debts paid, which must be very gratifying to all the members thereof.

The solicitor's report is characterized by its brevity, as there is little to report upon. In the past official year few actions have been settled or commenced. This is exceedingly satisfactory. The existence of the association and the knowledge that many physicians are members of such an organization is apparently acting as a deterrent in bringing these annoying and mostly baseless actions.

Dr. R. W. Powell, Ottawa, has been the President since the association was organized at Winnipeg in 1901, and is deserving of great credit for promoting this association so successfully.

MEDICAL SUPERVISION OF SCHOOLS

Dr. W. A. Evans, former Health Commissioner of Chicago, says parents have a right to expect from school inspection:

That contagion will be less than in uninspected cities of the same size in the same climate.

That epidemics will be more than twice as far apart as before school inspection.

That it will never be necessary to close the schools for contagion.

That each generation will grow up stronger than its predecessor.

That there will be fewer deaf, fewer hunchbacks, fewer cripples.

That, eventually, the schools shall be properly ventilated.

Every parent has the right to expect his child to have fewer colds, fewer coughs, fewer sore throats, less rheumatism, and less heart disease than prevailed before inspection, to go through his school life without ever having been in danger of smallpox or losing a day from this contagion.

To go through school life without having diphtheria.

His child's chance of scarlet fever to be reduced to one out of six; of measles and whooping cough to be less than before school inspection.

To be told when sore throats are due to diphtheria and when to ordinary bacteria.

Not to get lice or itch or ringworm in school, or, if the child does, the school inspection shall correct the condition promptly.

To have headaches rarely or never; not to be tired at night, or listless, or pale and flabby looking.

That the child shall not become a mouth breather or get to be lantern jawed.

That he shall want to play, enjoy play, and know how to play.

That he shall make at least one grade a year and every year or so an extra grade.

That if he be feeble minded, or deaf, or blind, or crippled, or tubercular, he shall be cared for by special teachers in special schools and in a special way.

The parent should support his child in school, making little or no money during the school years.

That is about what the law says and it is good sense and good judgment as well.

If the parent is forced by law to keep his child in school for six hours a day five days a week for ten months a year for eight years he has the right to insist that the school room be well ventilated; that contagion be kept out of the group, and that the school do everything it can for the physical welfare of the children to the end that they study better, learn faster, and grow up in strength."
—*The Medical Times.*

News Items

Perth, Ontario, will establish a general hospital.

A new hospital will be erected at Kootenay Lake, B.C.

The Welland County Hospital will build a tuberculosis annex.

North Battleford, Sask., is considering a new general hospital.

The nuns of St. Francis will erect a hospital at Limoilon, Quebec.

The Vancouver General Hospital wants $325,000 from that city.

Dr. W. F. Hamilton, Montreal, has been visiting in New Brunswick.

The Victorian Order of Nurses will establish a small hospital at Burnaby, B.C.

The Misericordia Hospital, Edmonton, Alta., is seeking $240,000 from that city.

The Brooklands hospital at Sydney, C.B., has been partially destroyed by fire.

River Glade in the Maritime Provinces is opening a new tuberculosis sanatorium.

Port Arthur, Ont., is considering a tuberculosis annex to the Isolation Hospital.

Toronto had 363 deaths from contagious diseases in 1912 as against 434 in 1911.

The Sisters of Providence will build a hospital at Moosejaw, Sask., at a cost of $50,000.

Mr. George H. Gooderham, M.L.A., has donated $25,000 to the Toronto General Hospital.

A psychiatric clinic is to be established in connection with the new Toronto General Hospital.

The Victorian Order of Nurses has been enriched by $220,000 collected by H.R.H. the Duchess of Connaught.

The Medical Health Officer of Montreal is preparing to combat infant mortality in that city the coming summer.

Dr. W. B. Querry, Windsor, Ontario, died Dec. 12th, 1912. He was 82 years of age. He practised 30 years in Sandwich, Ont.

The Province of Quebec has commenced its new public health system. Dr. Adelard Corsin is the resident inspector in Montreal.

The King Edward Memorial Fund for the care of consumptives, promoted by the National Sanitarium Association, has reached $1,000,000.

Dr. W. J. Wagner, for forty years a practitioner in Toronto, died the 10th of January, 1913. He was born in Rochester, N.Y., in 1849.

Dr. H. Hervieux, Montreal, one of the oldest and leading French-Canadian practitioners of that city, died on the steamer Rochambeau, en route from Havre to New York.

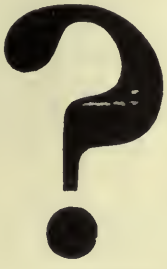
The Ninette Sanatorium, Manitoba, was opened in June, 1910. Since that time 433 patients have been admitted. Of this number 392 were discharged and forty died. New buildings are in course of erection, and when completed, will accommodate 110 patients. The Ninette institution will then be the third largest in Canada.

Publishers' Department

A Possible Revolution in the Treatment of Infectious Disease.—Are existing methods of treating bacterial diseases to be fundamentally changed? Do the phylacogens furnish the key to a new and enlightened therapy? Medical and other scientific men are beginning to ask these questions. Less than one year ago the name phylacogen had not been injected into the language. To-day you can scarcely pick up a medical journal that does not contain some reference to the remarkable group of products for which it stands. What are phylacogens? Briefly, they are sterile aqueous solutions of metabolic substances generated by bacteria grown in artificial media. The name phylacogen (from the Greek) means "phylaxin-producer"—literally, "a guard" and "to produce." The initial phylacogens were originated by Dr. A. F. Schafer in 1908, the method of preparation and technique of application being first presented to the San Joaquin Medical Society in Fresno, California, in October, 1910, and later to the San Francisco Medical Society (Januuary 14, 1911). Subsequently the preparation of the phylacogens was entrusted to Parke, Davis & Co., the work of manufacture being carried on at the company's biological laboratories. The principle upon which the use of the phylacogens is founded is the theory of multiple infections. Three facts are set forth as the basis of the new therapy: 1. Practically all acute and many chronic diseases are caused by the metabolic products of bacteria. 2. The human subject is the host of micro-organisms that are pathologically latent, but capable of setting up a disease process under certain conditions. 3. The growth of infecting micro-organisms can be arrested and their effects neutralized by products derived from their development in artificial culture media. Five phylacogens are now available: Rheumatism phylacogen, erysipelas phylacogen, gonorrhea phylacogen, pneumonia phylacogen and mixed infection phylacogen (the last named being applicable to the multiplicity of infections which may be said to be of questionable etiology). They are supplied in rubber-stoppered glass bulbs of 10 c.c. capacity and are administered hypodermatically (subcutaneously or intravenously). Many experienced physicians, representing both private and hospital practice, believe that in the phylacogens we have the most efficient remedial agents yet devised for the treatment of acute and chronic infections.

Conscientious Objections.—Referring to the neglect of vaccination in the Seaham Harbour Urban District, Dr. Luke Dillon, M.O.H., quotes the following reasons given by parents who desired to claim exemption for their children:—(1) Smallpox is bred in the stomach, and if you keep the stomach clean there will be no smallpox. (2) God made man pure, and it would be wrong to put matter from a beast into him. (3) Would have no animal disease put into his child. (4) Would not have his child vaccinated unless the matter gave protection against all other diseases as well as smallpox. (5) Saw no good in vaccination, because although his brother had his boy done the lad had been only a week at work when he broke his leg. (6) Had none of his children vaccinated, because he had a conscientious objection to having anything done which would stop disease sent as a punishment for the sins of men. (7) Said he had a conscientious objection, and then asked, what did a conscientious objection mean. (8) Several persons said "they got the paper signed because the children were bother enough without vaccination." As Dr. Dillon says, these "reasons" would be amusing but for the danger such ignorance involves.—*The Medical Officer.*

A Severe Burn. By H. B. Lee, M.D., Summerville, S.C.—My first use of Antiphlogistine in burns and scalds was accidental. I was called by telephone to Mr. J. T., aged twenty-seven, weight 180 lbs., brickmaker, a steam-pipe having exploded between his legs, scalding him badly. I ordered that no grease of any kind be used, but that cloths soaked in a strong solution of bicarbonate of soda should be laid on the parts till I could get there. I stopped at a drug store to procure another salve I had used in such cases, and by mistake the clerk gave me two boxes of Antiphlogistine. When I reached my patient I found him suffering intensely with a big blister extending from the crotch to the ankle on the inner side of both legs, at least three inches wide and surrounded by a red inflamed surface two inches wide on each side. I had used Antiphlogistine before in pneumonia and in sprains, so when I found that by mistake this had been sent I decided to try it. I covered the entire injured parts with a thick layer of Antiphlogistine (applied cold), put absorbent cotton over all, and after bandaging loosely to keep things in place, took Mr. T. home in my buggy. When I first saw him his face was contorted with pain and he could not suppress the groans that the agony wrung from him, but, as I covered more and more of the burnt surface with the dressing, I could see the expres-



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sion of pain leaving his face. I gave him some medicine to relieve pain and when I called again that evening I found he had not touched the anodyne. I asked him why he had not touched his medicine. "Well, doctor," he said, "you told me to take that every two hours while I was in pain and I have not had any pain." The next day I let him leave his room and in three days he was back at work. I did not touch the dressing for five days, and when I took it off the parts had healed entirely. There are two important points in the use of Antiphlogistine. First: put it on thick, thick, thick, using it hot for internal inflammations and cold for burns and scalds. Second: never put cloth over the Antiphlogistine, except a thin layer of gauze, if necessary, but put absorbent cotton in thick layers over your first dressing. Don't try to remove it as long as it sticks to the skin for it will let go as soon as it has done its work. I have used this preparation (Antiphlogistine) frequently since then in severe burns and scalds and yet have to meet my first disappointment in its curative power.

Iodine Sterilization of the Skin.—Ample testimony has accumulated during the past four years regarding the value of iodine sterilization of the field of operation as a routine measure. Bacteriologically and histologically iodine painting is superior as a skin disinfectant to "scrubbing up." Clinically it has been found to be at least as reliable. Its advantages are obvious. The official U. S. P. tincture (7%) in full or half strength is commonly used, but the skin must be free from moisture. Moisture may be removed before painting with benzine, alcohol or ether, but washing had best be done several hours before operation. Shaving should be done "dry," if done just before operation. Two serious objections have been raised against iodine sterilization. Propping thinks it responsible for post-operative intestinal adhesions, by contact of the gut with the skin and with iodine stained towels. Some subjects show an abnormal susceptibility to iodine dermatitis. As to the first objection, care should be taken to protect by ample pads and towels exposed coils of intestine from contact with the iodized skin. As to the second, this sequela can usually be obviated by using the iodine only once and in a single coat, and by washing off the skin, after the operation, with alcohol. There are also some conditions and situations in which the iodine method of sterilization seems inadvisable—in cases of hyperthyroidism; on the face; on the genitals. Further experience may teach us that it is wiser not to use it when much intestinal exposure is anticipated, and that when the

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skin is quite wet from perspiration, preliminary bathing with benzine or ether is insufficient as a drying measure to prepare the way for penetration of the iodine.—(*American Journal of Surgery,* October, 1912.)

Patent Medicines.—Many people are laboring under the impression that the patent-medicine business is being destroyed, thanks to the efforts of *Collier's Weekly,* the *Ladies' Home Journal* and the *Journal of the American Medical Association.* According to a recently issued bulletin of the Census Bureau this is not the case; on the contrary, this business is really increasing. From this bulletin we learn that the value of the so-called patent medicines increased from $88,791,000 in 1899, to $117,436,000 in 1904, and $141,942,000 in 1909. These sums represent the value of these products at the factories where they are produced, not their retail prices. Establishments producing less than $500 worth of medicine annually were not included, nor were the special remedies concocted and offered for sale by nearly every retail druggist. There are about 125,000 physicians in this country actually engaged in the practice of medicine. These men are said to have, on the average, incomes of less than $1,000 annually, making a grand total of $125,000,000 paid to the medical profession. Add to the factory prices of the patent medicines the jobbers' and retailers' profits, and it becomes safe to assume that the people of this country spend for patent medicines more than $200,000,000 annually, even deducting something for the proprietary remedies shipped to other countries, which are probably more than balanced by importations. The kernel of thought worth chewing over is this: For every $1,000 paid a doctor, the people pay about $1,500 for "patents." Instead of abusing the druggists or the people who make these more or less "popular" medicines it may be well enough to ask *why* the people prefer this stuff to our services. Possibly there is something wrong with *us.—The Medical Standard.*

The After Care of La Grippe.—Among all of the infectious diseases to which human flesh is heir there seems to be none which so literally "takes the life out of one" as epidemic influenza, popularly known as La Grippe. Even though the acute febrile period of the disease may be comparatively short, from one to three or four days, the after results may persist for many weeks. The respiratory catarrhs that so frequently complicate and follow the Grippe hang

The Commuter's Comfort

Hurry and Worry are the advance agents of Nerve Exhaustion. The Winter days are the short days and the man who gets in a full day's work must have a breakfast that gives the greatest bodily warmth and nourishment with the least expenditure of time and effort in preparation.

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is the "commuter's comfort" because it contains all the rich body-building material in the whole wheat grain and because it is ready-cooked and ready-to-serve.

Two Shredded Wheat biscuits (heated in oven to restore crispness) eaten with hot milk will supply all the nutriment needed for a half-day's work. With stewed fruit, baked apple or sliced bananas, Shredded Wheat makes a wholesome meal for any time of day, in any season.

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on with a tight hold, in spite of all treatment directed to the respiratory tract, and the prostration which succeeds the acute infection is usually out of all proportion to the duration of the attack. Much, however, may be accomplished by careful attention to nutrition, etc., supplemented by the use of an easily tolerable, readily assimilable tonic and reconstructive such as Pepto-Mangan (Gude). This well-known and dependable blood-builder certainly aids materially to hasten convalescence, by stimulating the appetite, creating new red cells and hemoglobin and acting as a general reconstituent.

Brand's Fever Food. Prepared by Brand & Co., Mayfair, has now become almost too well-known to require further commendation. It is conveniently put up in small tins opened with a key, and its merits should ensure its being invariably included in the equipment of every traveller to tropical climates. A combination of essence of beef, egg and cream, its efficacy in sustaining the vital powers in fevers, and its property of easy assimilation make it the most valuable of foods in all malarial climates. In cases where the stomach rejects even milk and soda water, this food can be administered with success. If ice be obtainable, the tin may be placed on it; if not, the tin may be wrapped in a wet flannel and suspended in a draught. The jelly thus cooled is administered in a teaspoon without any admixture, and only those who have experienced its advantages can duly appreciate its value. We have analyzed it on a previous occasion, and now find its composition to be practically the same. We would earnestly commend all medical officers and others proceeding to malarial districts to take a good supply of this preparation, which will afford them the means of greatly alleviating the suffering consequent on malaria in its severest forms and in all probability the satisfaction of knowing, as does the writer, that by its aid they have saved lives that might otherwise have been lost.

The Physician's Duty.—Physicians are becoming more and more impressed with the value of prophylactic measures. Therefore to instruct patients of the gentler sex in hygienic and sanitary principles and procedures is both a duty and a privilege.

The proper use of the Marvel Whirling Spray Syringe is not only instrumental in the treatment of diseased conditions, but is also of great value as a prophylactic measure.

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All who have worn Dr. Deimel undergarments for one winter wonder at the change for the better which has taken place with them. **They fail to understand** how they could ever have worn wool next to their skin.

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It is a fact, often not entirely appreciated even by physicians, that the vaginal douche, is improperly employed. Despite the opinions sometimes expressed that frequent douching is not advisable, that the natural secretions being sufficiently germicidal should be allowed to remain, etc., it is a matter of common knowledge and experience among women of any degree of refinement that proper toilet of the vaginal tract is as valuable, necessary and indispensable as the use of the toothbrush.

This being true of women whose genital tract is in a normal and healthy condition, it applies with augmented force to the vast proportion of cases, in which there is some abnormal condition present, such as excessive mucous secretions, leucorrhea, vaginitis, endocervicitis, endometritis, congestion, irritation, etc.

It is indeed a matter of common and daily experience that women who are nervous, irritable, easily worried, cross, peevish, moody, etc., are often greatly benefitted by the use of warm or hot vaginal douches, properly employed by means of a suitable apparatus or syringe.

Cleanliness of the genital tract is for women not only a valuable sanitary and hygienic measure, but also in many instances an absolute necessity, in order to prevent physical irritation or discomfort, as well as mental unrest.

Diarrhea in Infants.—Stolte (*Mon. für Kinder. B.*) reports four cases where the infants were losing weight. They were from three to five months old. Buttermilk was substituted for two or more ordinary feedings during the day. There was immediate improvement in the stools, gain in weight and general condition. Buttermilk has a low fat content, a high lime content and considerable albumen.

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Original Articles

A CASE OF GONOCOCCAL SEPTICÆMIA

By A. C. Hendrick, M.A., M.B., F.R.C.S.
Fellow of the Obstetrical Society, Edinburgh; Demonstrator of Gynæcology, University of Toronto.

The patient, a male, *aet.* 26, was referred to me for the cure of a slight gleet. He gave a history of infection with the micrococcus of Neisser, one year previously, but was cured (?) in three weeks with injections by a physician who believed in the possibility of rapid and complete cures of gonorrhœa. However, the "*bonjour*" drop had persisted ever since.

The patient was at first put on urotropine and methylene blue for a couple of days; then the prostate was gently massaged per rectum, but very little secretion was obtained at the end of the penis.

In two days' time the patient returned, complaining of the typical symptoms of an acute attack of gonorrhœa. There was a profuse yellowish discharge from the urethra, which, upon microscopic examination, showed a pure culture of the Gram-negative intra-cellular diplococci, and there was no doubt but the case was one of acute gonorrhœal urethritis arising from germs massaged from a latent focus in the prostate, as the presence of a recent infection had been excluded. The patient was put on santalwood oil, m. 10—q—6 hrs., and the urotropine continued. He seemed to improve for a couple of days, then became acutely ill with general constitutional symptoms characteristic of a general blood infection.

The discharge had practically disappeared, but upon examination the prostate was found somewhat tender and swollen, and there

was much irritation at the trigone of the bladder, causing intense pain on micturition.

The vesiculae seminales, vas and epididymis were not involved now or at any time; but to prevent the so-called "reverse currents of the vas" carrying the infection to the epididymis, suppositories of atropine were prescribed, as advised by Schindler and Low.

The patient was ordered to hospital, accordingly, on Oct. 20, 1912, and remained there until Nov. 8, 1912. On entrance, the temperature had reached 104° F.; pulse, 100; respiration, 24.

The condition of the patient not improving, a consultation was held, and it was suggested that the condition might be one of gonococcal pyelitis, complicated by streptococcal infection. Certain symptoms of meningeal irritation also suggested the possibility of a gonococcal meningitis. But the examination of the urine and of the cerebro-spinal fluid revealed nothing to verify it, though certain clinical symptoms, e.g., intense headache, photophobia, and stiffness of the cervical muscles rather suggested some meningeal irritation.

There was also a severe herpes of the face.

The patient was evidently suffering from some generalized infection; in other words, an acute septicæmia, in spite of repeated negative blood-cultures and negative Widal's.

Knowing how difficult it is to obtain cultures from the blood, it was considered wise to give the patient sera. Accordingly, 20 c.c. of anti-streptococcic serum were given. There was no very marked reaction, except a slight fall in temperature, and this did not last very long, the effects wearing off in 36 hours.

The patient now complained of a pain in the side, which seemed to be an involvement of the pleura, a serous membrane surface, such as the meninges. Here anti-pneumococcic serum was advised and given, 20 c.c. in 150 c.c. of normal saline, intravenously.

There was a sudden drop of the temperature and pulse for 12 hours, and then a return of hyperpyrexia as bad as ever.

We were now convinced that neither the streptococcus, nor typhoid, or influenza or pneumococcus were the causative agents, but that this was a case of gonococcal septicæmia. The germ certainly had not been isolated from the blood, but there were many clinical manifestations of its toxins in the circulation. Besides, one must remember that it is very probable that certain symptoms are due to the toxins—"gonotoxins" and others to the presence of the germ in the blood-stream, though they must always be present in small numbers, as Cheyne[1] states is the case in any acute septi-

cæmia. The germs probably very soon form metastatic foci, and from these shed their toxins into the blood-stream, e.g., in endocarditis there are probably metastatic foci involving the valvular tissue. The toxins of gonococci especially attack serous membranes; hence the symptoms here of meningitis and pleurisy.

The toxins also attack the central nerve ganglia; therefore the presence of the herpes facialis in this case.

Hence, since there was no tangible focus to be found except that in the prostate, after again giving anti-streptococcic serum 20 c.c. and getting no reaction, it was determined to persevere with the mixed gonococcal vaccine. Accordingly, acting upon the suggestion of Dr. George Ross, the patient was given 15 million g.c. in the mixed vaccine. There was a decided reaction. The condition generally improving. Encouraged by this, the dose was repeated, slightly smaller, 10 millions g.c. After this, with the exception of a slight rise in temperature, the improvement was continuous. Another 10 millions was given four days later. The condition improved without interruption, and the patient left the hospital Nov. 8, 1912, feeling quite fit.

There have been very few cases of gonococcal septicæmia reported in the literature.

Cases of endocarditis and arthritis are really metastatic diseases due to the deposit of the gonococcus in the tissues.

Those cases of arthritis, where many joints are involved, are probably due to the actions of the toxins upon the serous membranes of the joints, just as we had pleuritis and meningeal symptoms in this case.

The fact that the germ was not found in the blood-stream really means very little. Most diseases we now know have the germ present in the blood, provided one takes a sufficient volume of blood, e.g., the typhoid germ is in the blood very early in the infection.

In the case of the gonococcus, there are two good reasons for not easily finding it:

1. The large volume of blood required—2 to 3 c.c. at least[2].
2. The great difficulty in cultivating the germ *in vitro*.

That there is a septicæmic disease resembling typhoid fever in many aspects has been stated by Dieulafoy, who reported two cases in 1909[3]; also Muir and Ritchie[4] state the same.

LITERATURE.

1. Surgical Treatment—Cheyne and Burghard, 2nd edition, Vol. 1, p. 189.
2. Horder, T. J.—*The Practitioner,* Nov., 1905.
3. Dieulafoy—*Bulletin de l'Academie de Medicine,* May 18, 1909.
4. Muir and Ritchie, Manual of Pathology, 5th edition, page 256.

THE CURE OF POVERTY

BY A. C. E.

Clean up the world and Christianize it, and poverty will disappear.

Of all the universal, world-wide movements upon earth to-day, none is more outstanding in importance, none of more lofty reason, none of more life-rendering fruitage, than the public health movement. To this there is one single exception—the winning of the world for Christ. It transcends the peace movement, and in its broad and general aspects makes for cleanliness, which is next to Godliness. It spells health in the home, a sound mind in a sound body, morality, contentment, happiness, plenty.

If we are to-day not in the era of preventive medicine, we are at least upon its threshold. Long years ago one of the distinguished scientists of Great Britain, Sir Lauder Brunton, predicted that early in the twentieth century the medical profession would be more engaged in preventing disease than in curing the ills flesh is heir to. This campaign is now on all over the civilized world.

In order to strike the parallel, in order to make the most marked emphasis upon this greatest and best of conservation virtues, that most lamentable and most momentous of modern maritime disasters—the loss of the good ship, the Titanic—may be recalled and contemplated with the utmost profit.

"T—i—t—a—n—i—c, we were given to understand—the whole civilized world was given to understand—spelled the last word in naval architecture.

"Giant of the seas, early on the morning of the 15th of April she went headlong to her destruction, and the whole civilized world

was immediately plunged in overwhelming and stupefying horror.

"Philanthropist and millionaire, great railway promoter and distinguished *litterateur*, financier, lawyer, merchant, physician, officer, engineer, musician, laborer, artisan, mechanic, stoker, sailor, immigrant—men and women in almost every walk of life—dived to eternity with a calmness beyond the conception of mortal mind.

"Only when the sea gives up its dead will the true inwardness of that awful calamity be revealed.

"From out the dark, tragic gloom there shone the splendid, matchless heroism and nobility of soul.

"Not the least of these was that honored band of musicians.

"Nor can we fail to admire the unshaken nerves of those fearless and intrepid wireless operators.

"There were many acts of true chivalry; and now, after all inquiries have been instituted, and after all findings have been made and presented, true humanity can but weep and sorrow over those who were lost, and rejoice over those who were saved."

But turn from the contemplation of that heart-rending catastrophe to only one of several happening every year of our lives on this North American continent.

In the year 1910 alone, in the United States alone, 25,000 people lost their lives from an altogether preventable disease—typhoid fever—a disease which has been denominated a disgrace to civilization. In our own Province of Ontario, in that self-same year, seven hundred-odd yielded their lives to a similar cause.

Take these 25,000 (mostly young and vigorous men and women) who yielded up their lives in one year; gather them together into one moderately-sized city, or even into the largest city in the land; let them all die in one epidemic in a given time, and all humanity will stand aghast and lift up its hands in holy horror at this awful devastation of human life. But because they are distributed over wide areas of the country, their demise is neither felt nor noticed so keenly.

But this is only one of many. Consider tuberculosis, diphtheria, scarlet fever, infantile paralysis, and all the other communicable diseases, as well as those which are unmentionable—and their name is legion. The misery they engender is infinite. Their economic loss to the community cannot be measured up nor balanced up with cold coin of the realm.

And in the individual home, when the young life is proceeding to a successful convalescence in typhoid fever, and an accident happens—a profuse and exhausting hemorrhage or a perforation of

the bowel, or sudden heart failure—and that young life is snatched hence, surely the death is as tragic in that family as death by drowning, even in a great disaster like the Titanic.

Upon any night in mid-winter, when disease is most prevalent throughout the land, it has been conservatively estimated that one in one hundred of the population lies ill of some communicable yet preventable disease. Humanity can well afford to ponder and reflect upon this statement. Does not ill-health, sickness and disease entail untold misery, trouble, expense, inconvenience—to the poor especially?

Public medicine, with all its subsidiary branches, preventive medicine, sanitation, pure water supplies, proper sewage disposal, pure and clean foods, infant mortality, clean milk, the medical supervision and inspection of school children, hygiene, all offer the best there is in life, and more especially to the poorer classes.

The clerical profession and the medical profession, with the intelligent and undivided support and co-operation of the public generally, must join hands to uplift and ameliorate the sufferings of the poor. There must be a strong union, offensive and defensive, and the hand, once to the plow, must not turn back.

It is the part and duty of religion to collect men together. It is within its sphere of life to inculcate honesty and integrity, to promote morality, to foster truth and offset tyranny, grinding taxation and superstition.

The two professions of medicine and religion get nearer to all classes of the community than any other callings. They see life exactly as it is. They see the felon in his cell, the tatterdemalion in his garret or cellar, the millionaire in his mansion, the king in his palace.

"Go, and do the best you can!" was the mandate given by nature to man when our species was created. Equipped with instinct, endowed with reason, love and benevolence implanted in our bosoms, we have evolved a democracy which is not based upon the terms of equality. The rich are getting richer, while the poor are getting poorer.

The aesthetic mind contemplates with agony the misery and squalor of the poor. The wretched are burnt up with envy toward the rich.

It is needful for civilization, however, that there must always be some class of man to do the rough work of the world; and the man who goes down into the ditch and does this rough work of the world is entitled to be well paid for it. And, to put a new suit on an old adage—every man is entitled to the dollar which he earns.

Godliness makes for contentment and happiness. Cleanliness, which is next to it, makes for health in the home. The two joined will make for the best there is in life for all.

The necessity for a union of religion and medicine having been established, how is it to be brought about, and how will it work out in treating poverty and effecting a cure of this disease of the body politic, for it is nothing else than a disease, being neither vice nor crime, and, therefore, not infamous.

Let us now consider, studiously, philanthropy and the efforts towards which it has heretofore been directed—the greatest good to the greatest number.

Philanthropy has always concerned itself with and directed its efforts towards the establishment, maintenance and endowment of hospitals and such-like public institutions, universities, colleges, higher extension schemes of education, medical research, public libraries, foundation schemes, churches, special homes, refuges, orphanages, schools, benevolent societies, etc.—all collective philanthropy and in nowise individual. There has been no noisy intrusion of the domain of the poor to help one, a dozen, or a hundred, towards betterment and success in life. In this respect, the poor have been left severely alone by the philanthropic. They have been smothered with collective charity, galling and nauseating. There has been no place to which the individual could go, no State institution or society where financial assistance was honorably obtainable when needed. It has been either beg or ask alms. Yet there is ample and enough in the world for all.

Francis Bacon had the true conception of philanthropy, when he wrote the following: "I take goodness in this sense, the affecting of the weal of men, which is that the Grecians call *philanthropia;* and the word humanity, as it is used, is a little too light to express it. Goodness I call the habit, and goodness of nature the inclination. Riches are for spending; and spending for honor and good actions."

Instead of having in the mind's eye, forever, the universal good of mankind in general; instead of always seeking to do good for a community, collectively, philanthropists turned to the individual in need and assisted the needy, one by one, there would soon not be such manifest requirement for all the charities, and a great amount of tangible, individual good would be done to the home, the unit of society.

But to arrange to help deserving individuals in times of stress, it will be necessary for the act to be shorn of all semblance of

charity. It must be given the physiognomy of an honorable transaction.

Any great and comprehensive scheme of national betterment of the poor needs to be well organized. If the poor of the nation are to be benefited; if the cure of the disease, poverty, is to be accomplished for any nation, any such scheme must spread itself over the face of the entire country. But then governments have to be convinced of its feasibility. Governments are proverbially slow in taking up with new ideas, and they are just as slow in providing the machinery, the necessary legislation, for the administration of any new organization.

But, happily, it does not always need legislation to start any new society or organization. A beginning can be made and incorporation secured afterwards. A new organization in any given community, proving successful, blazes the path for others. The example set is soon followed. The good work it is doing gains access to the public press. It is talked about, read about, written about. It thus receives wide advertisement. From local it spreads to be provincial. It attracts the attention of the nation. The nation is no longer listless. It has proved itself. The nation is interested. Interest produces action. Action results in legislation. The scheme is now national. It is bound up with national life. It becomes part and parcel of government. As a spring trickles over and becomes a creek, other springs trickle over, run into it, and the creek becomes a stream, and the accession of other tributaries soon swells it into a mighty river; so a successful new organization soon spreads itself over the face of the land. Thus, for a time, good is being done, until a great national asset is established.

Churches are everywhere; ministers are everywhere; doctors are everywhere. The poor is ever with them. They know the poor and needy. It makes no difference what church, Catholic or Protestant, whether it is Baptist, Methodist, Presbyterian, Anglican, Lutheran, or what not.

Let us first take the case of a Methodist church in a large city. It is desired by the people of that congregation to help the poor of their own particular congregation, already adherent to their particular church, to do away with poverty so far as any of their church members are concerned. Let an organization, association or society be formed in connection with that church—a league bearing the name of the church, and dominated by it—for instance, the Broadway Methodist Church League of Finance and Health. Like all properly constituted societies or organizations, this League

should have a Constitution and By-laws for its guidance and governance, officers and Executive Committee.

It is now ready for its work, which is to ameliorate the conditions of its poor attendants, to cure the disease of poverty amongst them. Someone says we have no finances. They must get them. How? By establishing a permanent fund in connection with their League. A philanthropist must be got, either in that church or out of it, to donate to their League the ten, fifty or one hundred thousand dollars which he is going to donate to or leave to some hospital, public library, college or medical research fund; or the wealthier and better class of that church are to be appealed to for subscriptions to establish the fund.

The League is now established and the funds are in hand. It is prepared to do business. It must be published to all the members of that church, irrespective of their conditions in life, because it is a business proposition pure and simple, and is in no sense a charitable organization, that any member can borrow from that fund at bank interest small but satisfactory amounts for their present and pressing needs and emergencies, for stated periods, on their own non-negotiable paper, the only condition attached to the transaction being a hygienic one: that they will do their share towards cleaning up the world and preventing disease, social as well as physical.

It will be necessary for the clergyman and the doctor—any qualified medical man—though one of that particular congregation might be better— to attest to the condition of the life of the applicant, his home-life and environment, before any such advance is made.

It will be the duty of this church League to preach Godliness and cleanliness, to inculcate honesty, morality and hygiene, all and everything which will spread abroad the propaganda of religion and sanitation.

When it came to be known that this church had funds to loan to deserving poor who would try to help themselves, and that only those would receive assistance in this financial way who came within the pale of that church, people would hasten to identify themselves therewith.

Its membership would very soon have to be limited, but the example set would stimulate other churches to follow suit. Soon all churches in that city would establish these Leagues. This would offset any appearance of proselytizing.

Loan-sharks, usurers and pawnbrokers would have to go out of business. Distress for rent and bailiffs would become obsolete. The

churches would prosper. Religion would collect men together rightly. The public health propaganda would be a mighty power in the land.

Many sicknesses and much disease would be banished from the home. Worry and financial trouble would cease. Hospitals, sanatoria and homes would be to let. The conditions of the laborer and artisan would be enhanced. Those of the deserving poor would be advanced. The undeserving would take thought to themselves, which thought would add to their station in life. They would know where to get the money for the necessaries of life. Church associations and environment could not be but beneficial to all.

To put this new philanthropy in a more practical light: Let us take the case of a man in middle life—a workingman with a large family, who, in that respect alone, is doing good to the state; let us suppose he has bought and is paying for his home for himself and family. Adversity or sickness knocks at his door, and he loses his situation or "job." Here is the very particular case where a loan from a church philanthropic league would bring him and his family freedom from care and worry, financial worry, the worst of all worries, until the tide turned in his favor and he found himself back at his own or some other employment.

Or take the case of a widow, with a family of small children, when the breadwinner has been summoned hence; could she not hold her head up and go in and out amongst her small or large circle of friends and do the best she could on financial assistance got from an honorable source, until such times as her family would grow up to help her, or she could manage on the money loaned to establish in some business for herself or find employment?

Or the young man or girl wishing to get a business or other education for himself or herself—would they not deem life worth living if the church could help them? Would they not consider after all that there was really something good and tangible in religion? Would they not then think that religion was the truest of all philanthropies, that would bring these blessings in its train.

This is the medicine to cure poverty—poverty often with its dirt and disease. This is the dose to squirt under the skin of civilization. You can have all the movements for good you want to have; you can build, equip and maintain all the institutions you want to; you can preach all the sermons, deliver all the lectures, cram the newspapers, periodicals and magazines with facts, figures, information, solicitations and lamentations over the poor, but unless you can come down with the cold coin to the individual and the individual home, all your labor will go for naught.

But the moralist says: "Put money into the hand of the poor and they will immediately spend it in riotous living and in drink." That is to say, we have the idle poor as well as the idle rich. That is to say there is implanted in the bosom of every man something more than the mere vain, fanciful desire to get on in the world. He must have his pleasures and his happiness. Essential to this is money. Your moralist would, therefore, deny the pleasure of a drink to the poor man, leaving the rich man to imbibe it *ad lib.* Not so. But, yes. The poor is never mentioned by the moralist, but alcohol is the cause of it all.

Let us take that for granted, then, or at least consider that alcohol is mainly the great contributing factor to the disease of poverty.

Clean up the world and Christianize it. Christ said: "Love one another." The temperance people who, if they are not the embodiment of all that is religious in life, at least stand, in their own estimation, the better moiety of mankind. Instead of making love to all those engaged in the liquor traffic, they have waged perpetual war, war, war, against them from almost the dawn of civilization.

In spite of all the education on the subject, in spite of all the legislative enactments to regulate and control the liquor traffic, the fact remains that, year by year, the *per capita* consumption of alcoholic beverages increases.

Temperance people will persist in considering that the liquor traffic is one that can be controlled and regulated by government. It is undoubtedly a social evil, and all right-minded men would be glad to see it curtailed in its ravages.

It has made immense sums of money for some, whilst it has degraded and ruined many.

All over our land, religion is mortgaged, while King Alcohol stalks forth unencumbered.

So, if people are to drink, as they have done in all ages, and as legislation and education have failed to control it, why not let religion, the church, control it and make money, free themselves from their mortgages, establish funds for their work to cure poverty, bring all into their fold, and so clean up the world and Christianize the world? The profession of the church and the profession of medicine could do more to regulate and control the liquor traffic than the politicians.

The drink evil is not a political question. It is a moral and a medical question.

The abuse of drink is as much a medical question as the abuse

of drinking too much water, the eating of too much meat or any other food, the abuse of morphine, cocaine, chloral or chloroform. "If meat make my brother to offend, I will eat no more meat while the world lasts." No one takes that literally, although meat often makes a brother to offend. Meat in this quotation does not mean meat at all; it means strong drink, says your moralist. That may be so. The One who said it knows.

If it is a medical question and a moral question, it is for the clergyman and physician to regulate and control. It is for the clergyman to inculcate morals. It is for the physician to assist nature in curing disease.

When necessary, the physician prescribes alcohol like any other drug, in stated quantities, at stated intervals. He will tell you that your constant, regular drinker is the man who is offending his physical well-being, who is producing those hardening degenerations in his tissues which result in early decay and death. The periodical-spree man escapes these, but his morality is at fault, and requires the clerical corrective.

Alcohol is not to work on. It recuperates after work. If moderately consumed, now and again, no fixed habit, and no drunkenness, it will not conduce to physical decay nor to immorality. It is not well to eat meat all the time. So it is not well to drink all the time.

The doctor will tell you that it is the forenoon drinker who will go to the bad. To drink in the forenoon is pathological. Look out for a dipsomaniac in the constant, regular, forenoon drinker, or an attack of delirium tremens, when the drinking is excessive. After a day's work, as it is recuperative, it is natural, therefore physiological.

All saloons, hotel bars, liquor shops should be closed in the forenoons. One has only to go into any of these and observe for himself, any time up to eleven o'clock in the forenoon. If the profits of the liquor traffic came from drinking up to that hour, they would all soon have to put up their shutters. If there is much drinking going on in the bars up to that hour, all the more reason, from the scientific standpoint, for the closure of those bars.

The cure of poverty, therefore, lies in the control and regulation of the liquor traffic by the church, as it chooses to make rules for its sale and distribution, the establishment in the church of Leagues of Financial and Public Health import, as herein specified, and the amalgamation of medicine and the church in carrying out this new philanthropy.

This would be placing the liquor traffic in respectable hands, satisfactory to all; would mean that all money expended for liquor would come back to the church; would place the church in the closest possible touch with all those needing their light and their guidance; would make proper drinking a pleasure, just as proper eating, and would give the church unbounded funds to carry on their work of cleaning up the world and winning it over for Christ.

Vomiting of Infants.—Sébilleau has found a tablespoonful of 1.7 per cent. of solution of sodium citrate added to each feeding, or given to the child before being put to the breast, very valuable. Both American and English writers regard this as an efficient remedy.

Pott's Disease.—Openshaw and Roth (*The Lancet*) give an account of the treatment of Pott's disease as carried out in the London Hospital during the past ten years. The two principles of the treatment are: Putting the diseased parts absolutely at rest, and not interfering surgically until forced to do so. As soon as Pott's disease is diagnosed, the child is measured for a double Thomas hip splint, with head and feet extensions. Until this is made, the child is kept in bed. Once the patient is placed in the splint, he is never taken out, except once weekly, until a complete cure is established. The Thomas splint has these advantages over others:

1. It fits for years; for the head and feet extensions being adjustable, can be lengthened as the child grows.
2. The diseased portion of the spine and abdomen and groins can always be inspected without removing the splint.
3. If a sinus is present dressings can be applied.
4. The child can be washed daily, and so prevented from becoming verminous.
5. The splint does not cause sores.
6. It does not interfere with growth or chest development.

THERAPEUTIC NOTES

Pulmonary Tuberculosis.—N. K. Wood (*Boston Med. and Surg. Journ.*) claims that the results of treating pulmonary tuberculosis by the class method show 72 1-2 per cent. of the patients living at the end of six years. By this means patients can be kept under observation from one to five years. It teaches patients to be faithful to the treatment, and thus educated, they continue sleeping outdoors after discharge from the class. Fifty-seven per cent. have returned to useful occupations for 26 1-2 months. In some the tuberculous processes have been arrested without the loss of a day's work.

Hemorrhage.—G. H. A. Clowes and F. C. Busch (*N. Y. M. J.*) point out that in all forms of hemorrhage due to low coagulability, blood serum is of considerable value, and that animal serum is as good as human. Precipitated serum can be obtained with a suitable mixture of acetone and ether. It is freely soluble and sterile, and always available. Horse serum seems to be the best, and there are no deleterious results.

Pleural Effusions.—H. M. Davies (*The Lancet*) states that the ordinary method of withdrawing fluid from the pleural cavity is most unsatisfactory, for, as a general rule, never more than 50 per cent. can be withdrawn at a single tapping. He produces artificial pneumothorax by the introduction of oxygen, which is readily absorbed, as follows: Under local anesthesia, a needle connected with the aspirating apparatus is introduced through the eighth intercostal space in the midaxillary line. Above this, in the fifth space, in the same line, a needle connected with the oxygen apparatus is introduced. It is essential that the manometer should show respiratory movements, and only when these are shown should the oxygen be allowed to escape. Upon aspirating, when the patient coughs or experiences pain, the aspiration is discontinued, and 50 to 100 c.c. of oxygen are allowed to run into the cavity slowly. Davies claims the pain and cough will at once disappear, when the aspiration is to be resumed. This is repeated until no more fluid

can be withdrawn. As the end of the operation approaches, oxygen will escape with the fluid, when the proportion introduced to fluid withdrawn should be increased.

Psychoneuroses.—Vogt (*Berliner Klin. Wochen.*) groups neurasthenia, hysteria, hypochondria, psychasthenia, certain cases of psychic degeneration and mild melancholia under the term psychoneuroses. In these there is extreme subjective suffering and an absence of organic alterations, although somatic derangements may exist. The treatment is bodily and mental. The author repudiates the so-called intellectual method of treatment, and says all other methods come under suggestibility, whether by hypnotism or any mode which will overcome the internal resistance.

Neurasthenia.—Rauschborg (*Deut. Med. Wochen.*) says, for idiopathic or neuropathic memory failure, there has never been a somatic treatment recommended for this condition. In acute cases, patients should have dietetic and physical treatment in sanatoria. The physical treatment should be head massage, galvanization, sinusoidal voltaization, the franklinic douche and hydrotherapy. Of internal remedies, those that contain phosphorus are recommended, such as glycerophosphates, hypophosphites, lecithin and spermin. In cases where there are evidences of cerebrasthenia, country life, with farming, gardening and moderate sport. In mild but obstinate cases, a sea voyage, sea shore or a mountain sojourn may be tried.

Gonorrheal Rheumatism.—Herman L. Kretschmer (*Thera. Gazette*) has an article in the January, 1913, number, on the use of gonorrhea phylacogen in the above condition. He says this new remedy has practically displaced its forerunners. In his cases the individual injections varied from 5 c.c. to 10 c.c., and were given every day or every other day. Various amounts were given, but to one case as much as 135 c.c. were administered. One must be careful of the cessation of the treatment too soon on subsidence of the symptoms, as relapses may occur. It is essential that an absolute diagnosis is first established before treatment is instituted. He considers that gonorrhea phylacogen is a valuable adjunct to our present methods of treatment.

Tuberculosis. —Levy (*Deut. Med. Wochen.*) refers to the Friedmann method of specific treatment by immunizing with non-virulent living cultures, despite the advocacy of dead cultures by Koch, which have been held by many as insufficient. Levy holds that the specific treatment of the future must consist of active immunization. The predominant idea is an artificial vaccination-tuberculosis to protect the patient from the natural disease.

Eczema in Young Infants.—P. Rudaux, A. Grosse and V. le Lorier (*Thera. Obs.*) prescribe successfully the following: Zinc oxide, 7 grams; vaseline, lanolin, sweet almond oil, of each 10 grams. As this condition in young infants is invariably due to overfeeding, the regulation of diet is most essential.

Psoriasis.—Haldin Davis (*Univ. Med. Record*) says arsenic, thyroid extract and salicin are the most important drugs in this affection. He prescribes liq. potassii arsenitis, m. 2 to 5; sodii bicarb., grs. 10; inf. gential co., q. s., add one ounce. The dose of arsenic may be increased gradually every third or fourth day up to 20 drops.

Tic and Spasm of Face.—Alfred Gordon (*Thera. Gazette*) concludes that the procedure of alcoholic injections into the facial nerve is the most satisfactory of all therapeutic measures known at present for spasm of the face. In some cases a single injection will remove the twitching, but recourse may have to be made to the second, or even third. As the genesis of tic is not in the facial nerve, but in the patient's psyche, this must be treated by psychic measures, and not by material agents. Therefore, the necessity is apparent for a correct diagnosis before treatment is undertaken.

Worms.—Guiart (*France*) prefers thymol in all cases of worms. No purgative is given the night before, and no milk diet should be used. On three successive days the patient is given in the morning, fasting, every hour, two or three cachets, two to fifteen grains of powdered thymol, according to age. A little water is given after each wafer. Five hours after the last cachet, if no evacuation naturally, a purgative, but nothing containing oil, grease, glycerine or alcohol should be administered.

Corpus Luteum Organotherapy.—Krusen (*Am. Jour. of Obs.*) has given a careful study of the literature, as well as his own patients, and formulates the following concerning the present status of corpus luteum organotherapy:

1. The ovary posesses an internal secretion.

2. This internal secretion is produced by the corpus luteum.

3. In so-called ovarian insufficiency, relief may be obtained with an extract of the corpus luteum.

4. No untoward symptoms result from its use in conditions where it is indicated, even if no relief is obtained.

5. The extract should be given a fair trial before it is discontinued.

6. The extract used should be one that has been carefully prepared.

7. All glands that possess an internal secretion are more or less intimately connected.

8. Further experimental work will no doubt add new light to many of the questions that are still in a nebulous stage.

Illuminating Gas Poisoning.—McCombs (*Am. Jour. of Medical Sciences*) says that the essential treatment is the inhalation of oxygen, under pressure, if possible; and it is indicated in all stages. Seen early, the case should be treated with fresh air and mild stimulation, as with aromatic spirits of ammonia. With the nausea, vomiting and headache present in the first stage, relief to the gastric symptoms may be quickly obtained by some effervescing salt. The effervescing phosphate of soda is good. Headache will continue from twelve to twenty-four hours. Avoid collapse by any unnecessary exertion. When the patient is unconscious, but breathing—the second stage—respiratory action, if not stertorous, may be assisted, and here the Howard method by compression of the lower chest in rhythm with expiration, will be found effective. Oxygen, under pressure. The "pulmotor" may be used if at hand, maintaining a mixture of oxygen and air—60 per cent. oxygen. Medicinally, hypodermics of strychnine, camphor, caffeine and digitalis. Heat should be applied, preferably in a warm room, as a collapse is to be avoided in the colder open air. Massage of the muscles after aerating the lungs should not be forgotten. If demanded, venesection, with the introduction of normal salt solution, should be employed. Crile and his followers practise the direct

transfusion of blood. He believes this the best method. In the third stage, where the patient is not breathing, and is unconscious, maintain artificial respiration, oxygen, stimulation and heat. The Schafer or "prone pressure" method, is the best to use. Transfusion is indicated. So long as six hours' artificial respiration has been maintained, with recovery of the patient.

Suppurative Otitis Media.—Christie (*N. Y. M. J.*) claims, from his own experience, and the experience of others, that vaccine treatment in acute suppurative otitis media should be confined to those cases which are resistant to local treatment, and should be used in addition to such treatment. Vaccines are of value in most subacute cases, but in chronic cases their field of usefulness is much restricted. That they have a place in the treatment of suppurative conditions of the middle ear is established. Their use is justified and imperative to avoid the dangers of chronic suppurative otitis media.

Typhoid Fever.—M. Carles (France) has recently reported forty-four cases of typhoid fever treated with tincture of iodine with very good results. This he considers rational treatment, as hypoleucocytosis constitutes the most important infection of the organism, and tincture of iodine is the most important means of defence in producing hyperleucocytosis. The remedy is given as follows: Tincture of iodine, 20 drops; iodide of potassium, 2 gms; water, 6 ounces. To be taken during the day. The tongue clears off with this treatment, diarrhea is arrested, and the temperature falls. Arnozan says this treatment should not be exclusive, but cold bathing and subcutaneous injections of strychnine and camphorated oil should be administered as complications may arise.

Reviews

W. B. Saunders Company, publishers, of Philadelphia and London, have in active preparation a work on the History of Medicine, by Dr. Fielding H. Garrison, Principal Assistant Librarian, Surgeon-General's Office, and Editor of the Index Medicus. Dr. Garrison's twenty years' experience in medical bibliography, and the unusual advantages derived from his close touch with the rich stores of the Surgeon-General's Office, fit him most admirably for such a work as this.

His book will present the history of medicine from the earliest ancient and primitive times; on through Egyptian Medicine, Sumerian and Oriental Medicine, Greek Medicine, the Byzantine Period, the Mohammedan and Jewish periods, the Mediaeval Period, the Period of the Renaissance, the Revival of Learning and the Reformation; the Seventeenth Century (the Age of Individual Scientific Endeavor), the Eighteenth Century (the Age of Theories and Systems), the Nineteenth Century (the beginning of Organized Advancement of Science), the Twentieth Century (the beginning of Organized Preventive Medicine). There will also be Appendices covering Medical Chronology, Histories of Important Diseases, Histories of Drugs and Therapeutic Procedures, Histories of Important Surgical Operations, and Bibliographic Notes for Collateral Reading.

Dr. Garrison's work will undoubtedly be a valuable book to every medical man. In this one volume he will get a complete history of medicine from its earliest times, presented in a concise form.

The illustrations are intended to stimulate the reader's interest in the picturesque aspects of medicine and in the personalities of its great leaders. The biographies will be confined to the most important facts and to interesting personal traits. The original bibliographic references to the important discoveries, operations and experiments will be given. Each period is to be followed by a brief survey of its social and cultural phases. Altogether it promises to be a most important addition to medical literature. We await its publication with much interest.

Receipt of the following books is acknowledged for review:

Text-Book of Ophthalmology. In the form of clinical lectures. By Dr. Paul Roemer, Professor of Ophthalmology at Greifswald. Vol. II. Price, $2.50. New York: Rebman & Company.

Psychanalysis. Its Theories and Practical Application. By A. A. Brill, Ph. B., M.D. Price, $3.00. Philadelphia and London: W. B. Saunders Company. Canadian Agents, the J. F. Hartz Company, Toronto.

The Principles and Practice of Obstetrics. By Joseph B. De Lee. Cloth, $8.00; half-morocco, $9.50. Philadelphia and London: W. B. Saunders Company. Canadian Agents, The J. F. Hartz Company.

Vaccine Therapy. Its Theory and Practice. By R. W. Allen, M.D., B.S. (Lond.). Fourth edition. Price, $3.00. Philadelphia: P. Blakiston's Son & Co.

The Labyrinth. An Aid to the Study of Inflammations of the Internal Ear. By Alfred Brann, M.D., and Isidore Friesner, M.D. New York: Rebman Company.

Diseases of the Throat, Nose, and Ear. For Practitioners and Students. By W. G. Porter, M.B., B.Sc., F.R.C.S. (Edin.). Toronto, the Macmillan Company of Canada, Limited

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Pye's Surgical Handicraft. Edited and largely rewritten. By W. H. Clayton-Greene. Sixth edition. Toronto: The Macmillan Company of Canada, Limited.

International Clinics. Vol. IV. Twenty-second series. Philadelphia and London: J. B. Lippincott Company. Canadian Agent, Mr. Charles Roberts, 608 Lindsay Bldg., Montreal.

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COMMENT FROM MONTH TO MONTH

Dr. William Beattie Nesbitt died in Toronto on Friday afternoon, the 31st of January, about one hour after Mr. Justice Middleton had quashed all the indictments against him in connection with the Farmers' Bank case. He was forty-seven years of age.

The late Dr. Nesbitt was the founder of this and other journals. Indeed, he was a man of so much vitality that he could never be at rest, not even when promoting half-a-dozen enterprises at once.

In many ways he was one of the most remarkable men this Dominion has produced. No one doubted his ability, his brain power or his physical prowess. The men who actually knew Beattie Nesbitt—his closest and dearest friends—were never heard to say anything but good of the man, and they stood by him through good and evil report.

It would be marvellous if a man of his many-sided and strenuous life could pass through life without making enemies. That these enemies were produced through misrepresentation of his undoubtedly good qualities of heart and mind can verily be attested.

He had the true scientific bent of mind, and had he elected to have left politics alone, would assuredly have made a mark for himself in scientific medicine. Politics, however, was his daily meat and drink. In this respect it might be said of him he was to

the manner born. His creative genius was predominant and masterful. It was largely to this that jealousy was engendered within and without, and so kept him from coming to his own; for Dr. Nesbitt was deserving of greater preferment, in a political sense, than ever came to him.

To his sorrowing family the DOMINION MEDICAL MONTHLY tenders its sincerest sympathy.

Typhoid Fever in Toronto and Elsewhere is ever an absorbing theme. In the Editorial Notes in this issue are given some very interesting and instructing facts and studies with regard to typhoid fever transmission in various ways.

Several years ago it was pointed out in these pages that the tendency of the profession was too strongly towards placing typhoid fever as a purely water-borne disease, and that not enough attention was given to contact cases, imports, and food supplies.

There is abundant evidence now to almost risk the assertion that water-borne typhoid, except in certain times, is probably one of the least factors in the transmission of the disease. Indeed, so far as Toronto was concerned in 1912, it is the belief of our medical officer of health that the water was not a factor at all.

Two or three things seem clear: More attention will have to be given to rural sanitation; still better inspection in securing a safe milk supply; and a more strenuous fly campaign.

The seasonal incidence of the disease would warrant the best possible efforts being put forth in these three directions.

One might ask: If the water was not responsible for any cases in Toronto in 1912, why filtrate? It is better to be safeguarded in every direction.

To prevent contact cases, isolation and screening of all patients, and the vaccination of all attendants are the predominant measures to be recommended and strictly carried into execution.

About the Medical Council of Canada—We are constantly being asked the requirements under the Canada Medical Act for registration, and when the Act is to come into force; so, for the information of our readers, we may say that the meeting of the Council in Ottawa in November last was largely for purposes of organization. A great many important questions had to be con-

sidered, and by-laws and regulations created, as well as all the arrangements for the holding of examinations.

We understand that an Executive Committee was struck to bring in a comprehensive report at the next meeting. Moreover, it was shown to be necessary to have all such matters laid before the Governor-in-Council, and that they should be passed upon by that tribunal in the form of an order-in-Council before they would have the effect of law. This all required considerable time; so, after three days' session, the Council decided to adjourn and to meet again next June, when it is hoped matters will by then be in such a shape that the new Register can be opened.

Security of Tenure for Medical Officers of Health should receive attention from those in authority to provide for such security. All medical officers of health should be absolutely assured of their positions; and in this country there is no authority better fitted to arrange this assurance than the provincial legislatures.

Ontario guarded the interests of the district officers when the new Public Health Act was enacted a year ago, by appointing these officers and making them responsible to the Chief Medical Officer of Health of the Province. The system should be extended in this regard to include all medical officers of health in those cities where all their time is given over to public health duties.

In some American cities, medical officers of health are appointed on good behavior; others for a stated period of time.

Health officers would be better able to discharge their duties without fear of personal loss were they assured of security of tenure of their offices.

In each province there should be some central authority which would have to sanction dismissal before these first-class public servants could be removed by any local authority.

As the central authority requires the appointment of local medical officers of health, they should be the final authority to concur in any dismissal or otherwise.

Editorial Notes

THE SEVENTEENTH INTERNATIONAL CONGRESS OF MEDICINE

This important Congress meets in London, England, August 6th-12th of this year. There is every evidence that the meeting will be of more than ordinary interest, especially to the profession in Canada, to whom many courtesies have been shown in the selection of the officers of the Congress.

For the benefit of those attending we are able to announce that special transportation arrangements have been made with many of the Atlantic steamship lines, both Canadian and American. In general, it may be said that superior accommodation at the minimum rate is being offered to members of the Congress productive of their cards of membership. So far the Canadian Pacific, Royal, Allan, North German Lloyd and Hamburg-American lines have offered such terms, and we have reason to believe that others will do the same.

Those crossing the Atlantic this summer will assuredly find it to their advantage to go as members of the Congress, and to this end they may obtain blank forms of application for membership by writing to the Secretary of the Canadian Committee, Dr. W. H. B. Aikins, 134 Bloor St. West, Toronto.

Dear Sir,—I am endeavoring to form a party to visit the Seventeenth International Congress of Medicine, to be held in London, England, August 6th to 12th, 1913, and desire to lay before you some of the principal points of the undertaking, in which I am sure you will be interested in behalf of yourself and members of your family.

Having in view the advantage of travelling in a body, in that better accommodation can be obtained from the Steamship Company, it is proposed to engage space for the necessary number on "Royal Edward," sailing from Montreal, July 23rd, due Bristol and London on July 30th, leaving us one week to settle down before the Congress commences.

The Canadian Northern will allot us superior accommodation, either first cabin or intermediate, at special rates, and will arrange to give us special advantages on the voyage in many other ways.

I think the steamers of the Company are too popular and well known to require any minute description; but, in passing, I would say that they were built by the Fairfield Ship Building Company, of Glasgow, one of the most famous yards in Great Britain, and were especially adapted to meet the requirements of the North Atlantic trade.

They have six passenger decks, are propelled by triple screws driven by turbine engines, and have cabins and public apartments unexcelled in style and comfort by any other steamers on the St. Lawrence route.

Under these conditions, I would have no hesitation in saying that a party so travelling would receive the greatest satisfaction, and trust that if you plan to attend the Congress I may have the pleasure of enrolling your name as one of the number.

In addition to the above facilities, we would, of course, have special cars on the railway—Toronto to Montreal—and also on the Great Western Railway, from Bristol to London.

If you wish to have further details, and will drop me a line, I shall be glad to write you more fully, particularly in regard to the Port of Bristol and the surrounding country, which is full of interest, both historical and romantic.

If it would not be convenient for you to go on the date mentioned, by communicating with me, a date can be arranged to suit your convenience, and still enjoy the advantage of the special rate.

Information will also be furnished you, if you so desire, on the route from Bristol to London, and what places of interest may be visited on the way, with time of leaving and arriving of trains, and the coaching and automobile trips that may be taken on the way.

Advance information would also be gladly furnished regarding hotel accommodation in London, and its probable cost.

Before arranging to go by any other route, communicate with the undersigned for terms by the Canadian Northern.

JOHN FERGUSON, M.D.,
264 College Street, Toronto.

16th January, 1913.

HYPOCHLORITE TREATMENT OF WATER SUPPLIES

In connection with the purification of polluted water supplies, evidence goes to show that there is an ever-increasing number of cities employing this disinfecting agent. Terre-Haute, Cedar Rapids, Montreal, Toronto, Nashville, Cincinnati, Danville, Ill., Council Bluffs, Cleveland, Minneapolis, Jersey City, Kansas City, and

Baltimore are among the more important places which are employing it. In all a marked diminution in typhoid cases has followed its introduction. While it is not regarded as a panacea, it has established itself as an effective adjuvant in purification.

TYPHOID FEVER IN LARGE CITIES

In connection with the water situation in Toronto, the following information regarding the deaths per 100,000 of the population in certain large cities of the world will be found instructing and valuable: Berlin, Germany, had, in 1890, a death-rate of 9.1. This has been steadily reduced until, in 1910, it stood at 3.6. In the two decades the largest death-rate was in 1891, when it stood at 10.4, and the lowest in 1902—2.7. Hamburg, 26.2 in 1890; 2.5 in 1910; highest, 34.5 in 1892; lowest in 1910. Vienna, 9.4 in 1890; 4.1 in 1910; highest in 1890; lowest, 2.6, in 1907. Paris, 28.2 in 1890; 6.7 in 1910; highest, 34.6 in 1900; lowest, in 1910. London, 14.8 in 1890; 4.0 in 1910; highest, 17.8 in 1899; lowest, 2.6 in 1904. New York, 21.8 in 1890; 10.9 in 1911; highest, 22.8 in 1891; lowest in 1911. Boston, 34.6 in 1890; 9.1 in 1911; highest in 1890; lowest in 1911. Chicago, 91.6 in 1890; 13.7 in 1910; highest, 173.8 in 1891; lowest, 12.6 in 1909. Washington, 60.6 in 1898; 23.2 in 1910; highest, 79.1 in 1900; lowest in 1910. Philadelphia, 63.6 in 1890; 14.1 in 1911; highest, 74.9 in 1899; lowest in 1911. In Belfast, in 1911, there were only 49 notifications, whereas, not many years ago, they numbered 6,000 in a year.

THE ANTITYPHOID VACCINES

Typhoid fever in large communities in the present day is more to be feared than smallpox. It has been abundantly demonstrated that antityphoid serum or vaccine secures immunity against typhoid.

The Board of Health of the City of New York began, on the first of the year 1913, the inoculation of all persons applying for same through their physicians. The vaccines are furnished free to physicians, or the Health Inspectors perform the operations.

Provincial Boards of Health should consider this wise measure, especially for those in attendance upon cases, or who come into contact with cases. Vaccination should receive the best consideration in stamping out typhoid fever. A striking proof of the effi-

cacy of antityphoid vaccination is that of Avignon, France. In 1912 there was an epidemic of water-borne origin. The population of Avignon numbers 49,000. While but 644 cases of typhoid were reported, with 64 deaths, Dr. H. Vincent told the Académie of Médicine, Paris, there must have been 1,500 cases. In the garrison of the town there were 2,053 men. Of these, 1,366 were inoculated with a polyvalent antityphoid vaccine. There were no untoward effects. Among the unvaccinated soldiers, numbering 687, 155 cases of typhoid fever developed, with 21 deaths; in the vaccinated, not a single case developed.

TYPHOID FEVER IN TORONTO AND CLEVELAND COMPARED

As conditions in regard to water supply, sewage disposal, situation, etc., have been said to be somewhat similar in Cleveland and Toronto, a comparison of the typhoid fever incidence in the two may prove interesting at the present time. The population of Cleveland is 560,000; Mayor Hoeken's estimate of Toronto, 470,000.

Since Cleveland installed a new four-mile intake in 1904 the average typhoid fever death rate has been 16.3 per 100,000 population. Before that time, with a mile-and-a-quarter intake, two-thirds of the typhoid came from the water supply. Under present conditions, it is estimated 10 per cent. is due to water, 30 per cent. to insanitary conditions and transmission by flies, 10 per cent. to cases contracted out of the city, 5 per cent. to milk, and other raw foods, 45 per cent. contact cases, apportioned as indirectly caused by the other sources of infection.

Requesting for publication the total number of cases of typhoid and deaths from this cause in Toronto in 1912, and a categorical answer to the other five questions as assumed above, Dr. Hastings, the M.O.H., Toronto, has given the following: "1—304; 2—total 52, at least 17.3 per cent. contracted outside; 3—From evidence obtained as to cases contracted from outside sources, on holidays, by contact, and from milk, and from the good quality of the city water throughout the year, I doubt whether any cases actually were derived from city water; 4—Fifteen cases to one dairy—four cases directly to one woman alone, and many duplicate cases in same houses 2—4 weeks after first case. Several localized small outbreaks, probably due to flies or other local cause; 5—Thirty-four per cent. (many contacts with these); 6—Could not give this with any degree of accuracy this year; 7—Fifteen cases to one dairy

traced back to farm; others suspected, but no proof; very difficult to trace.'' (This last refers to milk-borne typhoid.—Ed.)

Before Cleveland extended its intake four miles into Lake Erie, in 1904, the death-rate varied from a minimum of 23 to a maximum of 99 per 100,000 population. Owing to an epidemic in 1903, it was 114.

A chlorinating plant was established in Cleveland in September, 1911, but the city has no filtration plant. A comparison with other American cities of 100,000 population and over, which have systems of water filtration, shows that only five have a lower typhoid death-rate than Cleveland.

IS RURAL TYPHOID THE CAUSE OF CITY TYPHOID?

Dr. Charles Frederick Bolduan, assistant to the General Medical Officer, New York, has recently been making a study of typhoid fever in New York City. His studies are embodied in a paper on ''The Rural Origin of Much of the Typhoid Fever in Large Cities, and the Need of Reorganizing Rural Public Health Administration. This paper is published in the January issue of *The American Practitioner*. Dr. Bolduan considers that a very large part of the typhoid infections in large cities is chargeable to infection from without, and whilst considerable progress has been made in reducing the death-rate from typhoid through improving water supplies, proper methods of sewage disposal and improved quality of the milk supply, that American cities cannot hope to accomplish much more in the way of reduction to the level of European cities until better methods of public health administration are established in rural districts.

From the years 1900 to 1911, the Greater City of New York has had 42,168 cases of typhoid fever, with 7,755 deaths. The old City of New York is supplied with Croton water, drawn from impounded streams draining an area of 360 square miles. Typhoid bacilli have never been found in this water, but colon bacilli quite commonly.

The Borough of Brooklyn is supplied almost wholly with deep well water, and has higher typhoid rates than Manhattan; but Brooklyn in some parts is inferior in sanitary conditions.

The more New York's typhoid infections are studied, milk has been found the vehicle of infection—and it is well known milk affords an excellent medium, under summer temperature conditions especially, for the growth of typhoid bacilli.

Another common cause is the infection of the patient while out of town, and about 25 per cent. of New York's cases of typhoid fever have this origin. So that if milk infection is added to out-of-town infection, one-half of the city's typhoid is of rural origin.

New York has seen one case of typhoid fever on a dairy farm give rise to over three hundred cases in that city.

New York City, according to E. J. Lederle (*Medical Record,* Dec. 14, 1912), is a most conspicuous example of a municipality undertaking practically the entire supervision of its own milk supply all the way from the cow to the consumer. Of the 45,000 farms on which New York's milk supply is produced, nearly all are located outside the city limits, and more than 6,000 outside the State of New York. These farms are in six different States, namely, New York, New Jersey, Pennsylvania, Connecticut, Vermont and Massachusetts, and some cream is received from Ohio and Canada. Its daily milk supply is 2,500,000 quarts, and it is estimated that 127,000 persons are engaged daily in handling it. On the basis of the relative frequency of typhoid bacillus "carriers" in the population of New York City, there may be perhaps a hundred such persons included in this army of milk-handlers.

THE EPIDEMIOLOGY OF TYPHOID FEVER

Mr. Theodore Horton, Chief Engineer, State Department of Health, New York State, writes in the *New York State Journal of Medicine* on the above subject. The address was from an engineer to a body of medical men. Epidemiology is associated indirectly with four professions, namely, medicine, biology, chemistry and sanitary engineering.

In investigating an outbreak of typhoid fever at any given point one requires to know the extent of the disease and whether it is epidemic and how serious. To answer these questions one must make comparison of the supposed epidemic with the known rates of other municipalities under normal and epidemic conditions.

The seasonal distribution is divided as follows: one for the months of December to March, two for April to July, three for August to November.

The mortality rate is computed per 100,000 population for the entire year, by using a lethality of 10 per cent.

By these means one can judge whether the disease is normal, unduly prevalent or epidemic, and how urgent must measures be for its prevention.

The second step is a study of the source or exciting cause, and for this there must be two essential pieces of information, a map or plan of the afflicted district, with all known cases and dates of onset. The other is a chart, showing essential facts in connection with all cases, such as names in order of occurrence, age, sex, dates of onset, residence prior to illness, sources of water, milk, ice supply, the eating of shell fish and other uncooked foods, sanitary condition of premises, screening of doors and windows, general cleanliness, etc. Also measures in prophylaxis and disinfection.

Upon careful study of all this information, if due to water supply, there will be a uniform distribution over the entire map and by a gradual increase in the number of cases. If the rise is in winter the evidence will strongly point towards the water. If well water, the cases will manifest themselves in clusters. If due to milk, the milk route will be ascertained, and if slowly progressive have in mind a "carrier" at the dairy.

There is a chain-like sequence of the cases in secondary infection which requires the closest scrutiny.

The practising physician is the one man who can materially aid by promptly reporting all cases of communicable diseases.

FLY-BORNE TYPHOID FEVER

According to Dr. C. E. Terry, City Health Officer of Jacksonville, Florida, water in that city is completely eliminated as a factor in typhoid fever. Jacksonville is supplied with artesian well water, from wells of an average depth of 1,000 feet.

Since January, 1910, milk, too, as a factor could be eliminated, as only three cases traced to this source occurred in the spring of 1912. With the two main factors removed, some other common condition had to be sought to account for the undue prevalence of the disease.

The conditions existent—8,500 privies—favored fly transmission, as not one was properly protected against flies.

In August, 1910, all privies were ordered screened or made fly-proof. To avoid contact cases, the sick room was also screened. In 1911 the cases numbered 158, against 329 in 1910.

Of the 158 cases in 1911, 88, or 55 per cent., were imported from surrounding rural districts.

TYPHOID FEVER AT OTTAWA

To have about fifteen hundred cases of typhoid fever in one year is a serious matter for any city, more especially when that city is situated in a country which is inviting emigrants to go to it, with the promise that all the surroundings and conditions tend towards health and prosperity. Such a record, however, is held by Ottawa, in Canada, and the public authorities have had a year of anxiety and trouble. They have sought the aid of the scientists and bacteriologists of Canada to help find the source of infection, with the result that these have fixed it upon the water supply. To add to their troubles, many inhabitants have brought actions against the corporation, claiming damages for all manner of supposed and real sufferings, some even going so far as to claim for the cost of fuel which they have used for boiling the water to render it safe for drinking purposes. This may be playing rather low, but the purpose has been attained, in that those responsible have resolved upon a drastic measure in order to try and stop the epidemic. According to a telegram from Toronto, from the correspondent of the *Daily Chronicle,* the Dominion Government has determined to invite Dr. Houston, Director of Water Examination for the Metropolitan Water Board, to visit Ottawa, and examine the water and means of supply. He is also to have power to submit plans for such reorganization as may be deemed necessary to secure immunity in the future. Dr. Houston is well qualified to carry out such a task. His long experience with the variations of London water places him in a unique position. Apart from this, he has acted as bacteriologist to the Royal Commission on Sewage Disposal, and formed one of the International Commission of Experts appointed in 1907 to inquire into the water supply of Cairo, and he is the author of many valuable reports on water pollution as found in different parts of this country. We congratulate Dr. Houston upon this latest compliment to his exceptional abilities and talents. —*The Sanitary Record.*

News Items

Dr. H. D. Hamilton has returned to Montreal after a visit abroad.

Dr. William Oldright, Toronto, is spending the winter in the West Indies.

Congratulations are due the *Western Canada Medical Journal,* which is celebrating its seventh anniversary.

Dr. Bapty, Victoria, B.C., is acting head of the Department of Public Health during the absence of Dr. C. J. Fagan.

Dr. Ramon Guiteras, New York, delivered an address before the Academy of Medicine, Toronto, on the 4th of February.

Dr. C. J. Fagan, Health Officer of British Columbia, expects to return shortly from the south of France, where he has been recuperating his health.

The new hospital at New Westminster, B.C., is well under way. The total cost of the building is to be $250,000. There will be accommodation for 128 public ward patients, 18 semi-private, 24 private, 2 wards for children, and 26 rooms for staff.

The Royal Jubilee Hospital, Victoria, B.C., is to be reconstructed and the citizens have raised $110,000 for the purpose. The city is to give $200,000, and efforts will be made to get the Government to bring the total amount up to a half million.

"The Bruchesi Institute of Montreal," named in honor of His Eminence the Archbishop of Quebec (Bruchesi), at its annual meeting the other day made Dr. S. Adolphus Knopf of New York City, Honorary President of the Medical Board. The present director of the Bruchesi Institute is Dr. Eugene Grenier, a former pupil of Dr. Knopf. The Bruchesi Institute is doing a magnificent work among the French-Canadian tuberculous population. Besides taking care of a great number of ambulant cases in a splendidly equipped dis-

pensary, it has a fine preventorium at some distance from Montreal and does a great deal of educational propaganda among children and adults by popular lectures and social workers.

Dr. Charles E. Treble (Radiographer, Grace Hospital) begs to announce that he has installed a modern X-Ray equipment, and is now prepared to undertake private work at his own office, cor. College St. and Palmerston Blvd. Consultation by appointment. Telephone College 4842.

The 1913 programme for winter lectures of the Branch Association Militia Medical Officers (Second Division), Toronto, will be held in the lecture room of the Canadian Military Institute at 8.15 p.m. Order of Dress, Mufti. Refreshments will be provided after lecture by the A. M. C. Mess.

Jan. 29, '13—The Medical Service at Magersfontein. Lt.-Col. J. A. Grant, A.D., M.S., 2nd Division.
Discussed by Lt.-Col. J. T. Fotheringham, D.A.D.M.S., 2nd Division, and Major Wallace Scott, Acting M.O. i/c, Stanley Barracks.

Feb. 6, '13—The Infantry Division in Attack. Lt.-Col. A. H. Macdonell, D.S.O., A.A.G., 1st Division.
Discussion opened by Major G. A. Winters, No. X. Field Ambulance, and Capt. G. R. Philp, No. XIII. Cav. Field Ambulance.

Feb. 13, '13—Transport and Supply, and their relation to the Medical Service in the Field. Major J. A. Shaw, O.C. No. 12 Co., C.A.S.C.
Discussion opened by Capt. T. A. E. World, No. X. Field Ambulance, and Capt. W. H. Fox, No. XI. Field Ambulance.

Feb. 20, '13—Annual Mess Dinner.

Publishers' Department

Safety Razor Blade Scalpel.—*The Journal of the American Medical Association* publishes a short article by Dr. J. B. Murphy, of Chicago, containing a suggestion for using safety razor blades as scalpels. The ordinary scalpel is often found to be dull and, even if sharp at first, the edge is affected by a few strokes in resistant tissues such as old scars. Dr. Murphy has therefore devised handles to hold the two types of razor blade generally met with—the double-edged like the Gillette pattern, or the single-edged such as the Autostrop—and states that he has used them in all his work for some time past and found them satisfactory. This invention solves the ever present problem of what we shall do with our old blades, or at least transfers the burden of its solution to the shoulders of others.

Be a Plumber.—In choosing a profession, der most lucrative—law, medicine or der ministry—is plumbing. In der first place, der brofession of plumbing is a pipe. Sometimes it is a cluster of pipes or a cinch, to speag plain oudt. All you haf got to know in order to be a graduate plumber is to haf enough sense to gather your kit of tools and go vare someding is leaking or stobbed up. After your tools haf done der vork for you, you send in your bill or take a mortgage on der broperty, wich is der same t'ing. After taking a first mortgage on der house, you vait patiently for der next leak, und den der house pecomes yours. Any conservative plumber vot ain't too greedy kin own any broperty on two leaks of der pipe und vun catarrh of der spigot. In fact der only difference petween a plumber und a highwayman is dot der plumber ain't afraid to use his lead pipe on der premises. Vat is der use of studying four years at scollege to learn to earn a modest lifing ven you kin git $20 for take a frozen fish out of a water pipe. Furthermore, a plumber takes a squint under a sink and charges $10, but a physician has to look at you ten times to make dot amount. A plumber kin make more money wiping a single joint den a doctor kin setting two joints or a minister condemning four joints, or a bolice department raiding six joints. In plumbing der ideals might not pe so high, but employment in der cellar is steadier.—*Exchange.*

The Sphygmomanometer is an instrument of recent invention for measuring the blood pressure. The name is derived from *sphygmos,* the pulse; *manos,* thin, rare; and *meter,* a measure. The manometer had been in use for some time as an instrument for measuring the tension of gases and vapors, and was readily adapted to testing blood pressure by adding a rubber bulb and a cuff with rubber bag attached on the inside. This is placed over the brachial artery, above the elbow, and when the pressure through the rubber bulb has shut off the artery so the pulse cannot be felt at the wrist, the reading in the graded scale at the height of the column of mercury indicates the bloodpressure. The normal blood pressure is 125 millimeters. In hardening of the arteries, and accompanying heart and kidney complications, the blood pressure is an important symptom to be studied. Several of the large life insurance companies require the blood pressure to be taken in applications for large amounts. One company requires it in all applicants without regard to age or amount. This company claims to have saved $50,000 in losses the first year in which they required the use of the sphygmomanometer. They followed the history of cases rejected on account of high blood pressure only, and found several who died within the year of apoplexy.—*Scientific American.*

Pole Finders Its Patrons.—Hotel Powhatan, Washington, D.C. has names of Peary and Amundsen on its register. A patronage extending from the north to the south pole is a distinction to which few hotels aspire, yet such is the claim in which Clifford M. Lewis, Manager of the Hotel Powhatan takes great pride. Although the Powhatan has been open but three months the pages of its register show the names of Rear Admiral R. E. Peary, discoverer of the north pole, and Capt. Amundsen, discoverer of the south pole, and as if to cement the two in their expression of approval, is found the name of Col. George Goethals, builder of the Panama Canal. Many names of persons of social prominence also appear on the register of this—Washington's newest hotel.

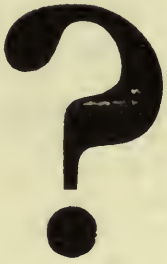
The modification of cows' milk for infant feeding is necessary in order to decrease the casein content which is twice what the child can assimilate. To accomplish this the milk is diluted with water. An attempt is then made to restore the other milk solids which have

been diluted along with the casein—the lactose by the addition of commercial milk sugar, the ash by the addition of lime water, the fat by the addition of cream. But there is no way of increasing the milk albumen, already deficient by a half in the milk, and further decreased by the dilution, and the most valuable and easily assimilated protein is present to the extent of less than one-quarter of the needed amount. Modified Milk Powder (C. M. P.) overcomes this difficulty. The modification is made with whey, not water; the milk albumen content is correct; natural milk salts take the place of lime water; natural lactose takes the place of the refined sugar of milk. The result is a food which absolutely does all that the mother's milk will do. Free samples upon request, Mail Bldg., Toronto.

Post-Grippal Asthenia.—Of all the acute infections to which human flesh is heir, none seems to be followed by such general prostration as La Grippe. As the Irishman aptly described it, it is "the disaise that keeps ye sick for a month after ye get well." The general devitalization that ensues after the subsidence of the acute symptoms appears to be entirely out of proportion to the severity of the original attack. It is therefore distinctly the part of clinical wisdom to inaugurate a vigorous reconstructive campaign as soon as the febrile movement subsides. Plenty of fresh air, an abundance of nutritious but easily digestible food, and regular doses of Pepto-Mangan (Gude) constitute a trio of therapeutic measures of marked benefit. If the heart action is unduly weak, or if the prostration is more than usually pronounced, an appropriate dose of strychnia added to the Pepto-Mangan is of considerable additional service.

Fever Food.—An invaluable food for tropical and other fevers; composed of Essence of Beef, with cream and yolk of egg, and containing the nutritive and stimulating properties of Brand's Essence, with the caseine of milk. The albumen of the egg combines in itself all that is necessary to successfully combat the fevers and feverish symptoms, so common and dangerous to all who live and travel in tropical climates, and where cream and eggs are difficult and often impossible to obtain.

Have been strongly recommended by medical men for use in all cases of fever, as well in England and temperate climes as in those more especially thought of when preparing this food.



Are you particular as to the condition of the iron in your Blaud preparations?

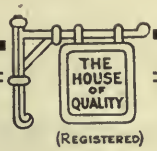
Frosst's Perfected Blaud Capsules present True Ferrous Carbonate.

Each 10 grain Capsule contains, approximately, 1 grain of Iron.

Charles E. Frosst & Co., Montreal.

Some Don'ts, Medical and Surgical.—The Fellows Company, of New York, manufacturers of that standard preparation, Fellows' Syrup, have issued a very practical and useful pamphlet with the above title. As the sins of omission are as grave as those of commission, these reminders can be read with profit by all. They treat of appendicitis don'ts, rectal cancer don'ts, uterine cancer, gastric, gynecological, cardiac, genito-urinary, salvarsan, neosalvarsan, and life insurance examination don'ts. Any physician can secure a copy by sending a card to the Company, 26 Christopher Street, New York.

Puerperal Infection.—From a study of recent literature, and also from personal observation, T. J. Watkins, Chicago (*Journal A. M. A.*, August 31), has been impressed with the difference of opinion that exists concerning the treatment of puerperal infection. His investigations, he says, indicate that local treatment is too prevalent, and that systemic treatment would be advisable in most cases. He gives a large number of extracts from the literature, and says that from personal observation, especially of general practitioners, he finds that most cases are treated by curettage, douches and intra-uterine medication. He gives his reasons for believing the disease a systemic one, and thinks it should be treated chiefly by general remedies which strengthen the bodily resistance and hasten the development of immunizing bodies. Retained products of conception should be left to escape spontaneously. In individual instances gauze packing should be employed to check bleeding, to hasten separation of the tissues and to stimulate uterine contraction. Pelvic inflammatory exudates are usually absorbed, but in exceptional cases, usually due to the colon bacillus infection, incision and drainage should be employed. Cases of suppurative peritonitis should be operated on early, but the vigorous operative treatment employed frequently is more dangerous than the disease. He gives an analysis of eighty-nine cases, nearly all of the severe type which should be sent to the hospital, in which operative interference was discontinued, with rare exceptions. (The greater proportion had been curetted one or more times and had received intra-uterine antiseptic douches.) Eight of the eighty-nine died, six were hopeless from general peritonitis, one had a large multilocular pelvic abscess from colon bacillus infection which terminated in generalized peritonitis and death; the



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eight died from a hemolyzing streptococcus infection with numerous mycotic emboli. Local treatment was confined to the first half of these cases in point of time. Fifty of the patients received supportive treatment only and in the thirty-nine other cases treatment was only expectant. About 50 per cent. had had pelvic exudates, and nearly all of these had received intra-uterine treatment before coming under Watkins' care. In all cases the exudate had practically disappeared when they left the hospital, where the average stay was only about three weeks.

Jiu-Jitsu for Schoolboys.—A good deal of paper controversy has been taking place lately with regard to the relative merits of ordinary games and physical exercises for public schoolboys. Some of the writers have somewhat confused the aims and objects of the two things, while others have declared themselves to be strongly in favor of one or the other. As a matter of fact, viewed from the medical standpoint, both are indispensable for the complete physical development of a young, growing boy. It is idle to suppose that a boy will ever indulge in a game, pure and simple, merely because he believes that it will strengthen his muscles, nor will he, unless he be ultra-enthusiastic, revel in the mechanical movements of physical drill instead of taking part in cricket or football. A boy will enter heart and soul into his "gym" work if it be pointed out to him that he will cut a better figure at games as a result of the training. Unless gymnastic exercises are suitably regulated and systematically practised they are of comparatively little use. In any case it is absolutely essential to enlist the whole-hearted sympathy and interest of the boy in carrying out any system of exercises. It might be thought that it would not be needful to teach the art of self-defence to schoolboys, but, regarded as an interesting, useful and practical method of developing the whole body, it seems a pity that so fine a game or sport as "jiu-jitsu" has not been taught more generally in our public schools. No one will deny the great utility of this art, and its great superiority as a method of cultivating and controlling the muscular movements, thereby rendering a youth an efficient combatant. The learning and practice of "jiu-jitsu" could not fail to interest a boy, while the advantages to be derived from a working knowledge of the sport are sufficiently obvious.—*Medical Press and Circular.*

"Votes For Women"

Two million women will have a right to vote in the next Presidential election. Twenty million women have voted for the emancipation of American womanhood by serving

Shredded Wheat

in their homes. Every biscuit is a vote for health, happiness and domestic freedom—a vote for pure food, for clean living and clean thinking.

The housewife who knows the nutritive value of Shredded Wheat and the many delicious fruit combinations that can be made with it may banish kitchen worry and household care.

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Surgical Treatment of Meningitis.—By Dr. Haynes (*Laryngoscope,* June, 1912). The lethal effects of meningitis are due to: (1) Toxins manufactured by the bacteria themselves. (2) Toxins generated in tissues and fluid by bacterial action on them. (3) Pressure. Septic conditions are usually surgical opportunities.

The intermittent arterial flow is converted into a steady stream in the cranium. The sinuses have a positive pressure. The choroidal plexuses secrete the cerebrospinal fluid in the lateral ventricles. It travels through the foramen of Monro into the 3rd ventricle, through the aqueduct of Sylvius into the 4th ventricle and escapes into the cisternamagna and pontis through the large foramen of Magendie and the smaller foramina of Key and Retzius. It then passes into the cerebral circulation through the Pacchionian bodies. The pressure of this fluid is slightly above that of the venous. It acts as a hydraulic buffer. Each systole of the heart compresses the Pacchionian bodies and veins which empty their contents into the sinuses. Diastole causes expansion of the Pacchionian bodies and aspiration of more fluid from the subdural and subarachnoid spaces.

Medical treatment of septic meningitis has failed. Surgery to succeed must be employed early. (1) Ventricular puncture used only in chronic hydrocephalus or in non-pyogenic, serous effusions. Great danger of infection. (2) Lumbar Puncture—yields the fluid for diagnosis. It is not curative. (3) Laminectomy—nearer the curative point, but may cause corking up of foramen by the brain stem. (4) Serum Therapy—Limited to cerebro-spinal fever from the diplococcus intracellularis of Weichselbaum. It fails in all others.

The symptoms for operation are: (1) A rising blood pressure (2) Edema of papillae (not choked disc which is late). (3) Absence of carbohydrates from the cerebrospinal fluid. (4) An irritable or clouding sensorium. (5) Vagus pulse. (6) Respirations irregular in depth and rate.

Intracranial pressure on the vital centres is the cause of death. Relief must be early or constitutional septic conditions continue to act long enough to cause death. The longer the delay the more diffuse the meningeal infection. Surgery has relieved all and saved some cases. Decompression prevents complications like optic neuritis, deafness, oculo-motor disturbances and some psychopathies.

The cisternamagna is chosen as the point of operation because: (1) it is the largest subdural space; (2) located to the occipital bone; (3) the fluid flows to it from the ventricles; (4) the fire of meningitis burns fiercest here. We operate here: (1) to relieve

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pressure and restore good blood to the vital centres; (2) to prevent corking of the foramen magnum; (3) drainage for infected fluid; (4) to forestall hydrocephalus; (5) minimum shock and time.

STEPS.

1. Scalp shaved.
2. Ether anesthetic through nasal tubes.
3. Median incision from atlas to ext. occipital protuberance.
4. Raise periosteum and muscles one inch transversely.
5. Plug emissary vein, if any, with tooth pick.
6. Trephine one inch above foramen with $\frac{3}{8}$ inch trephine (De Vilbiss).
7. With De Vilbiss bone-cutter cut two grooves $\frac{1}{2}$ inch apart into foramen magnum.
8. If occipital sinus is double, cut between; if single, tie above.
9. Incise only dura and separate from arachnoid.
10. Nick arachnoid slightly to allow fluid to escape slowly.
11. Watch blood pressure, pulse and respirations.
12. Open arachnoid to full extent of dural opening.
13. Remove any exudate and make sure of patency of foramen of Magendie.
14. Insert rubber tissue drain.
15. Replace muscles and skin and stitch above and below drain.
16. Big dressings.—*The Post-Graduate.*

Repeated attacks of quinsy suggest that the tonsil is diseased. If treatment of the gland does not prevent recurrence of the quinsy, tonsillectomy is indicated.—*Am. Jour. Surgery.*

Congenital absence of the appendix is exceedingly rare. Don't pronounce the appendix "absent" without searching behind the caput coli and without splitting the cecal serosa downward from the ileo-cecal junction—the appendix may be completely subserous, even though no thickening is felt. Moreover, the appendix is occasionally intussuscepted into the cecum. Of course, the organ may have been previously removed through some unusual incision, e.g., inguinal or femoral herniotomy.—*Am. Jour. Surgery.*

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Original Articles

TREATMENT OF DIFFUSE SEPTIC PERITONITIS*

By Herbert A. Bruce, M.D., F.R.C.S.
Associate Professor of Clinical Surgery, University of Toronto; Surgeon to the Toronto General Hospital.

In 1880 Mikulicz[1] operated for the first time upon a perforating gastric ulcer, and suggested the possibility that laparotomy might be beneficial in diffuse perforative peritonitis. Lawson Tait[2], in 1883, and Leyden[3], in 1884, also recommended operative treatment, but in spite of this Schlange[4], von Bergmann's assistant, in a paper published in 1884, strongly emphasizes the inadvisability of laparotomy in the treatment of the condition. In 1886 Krönlein[5] advised immediate operation in perforation peritonitis, and expressed the opinion that, in view of the uniformly unsatisfactory results of medical treatment, recovery in one case out of many would warrant the adoption of surgical measures, but the first statistics of operative treatment of peritonitis were published in 1890, when Stühler[6], of Strasburg, collected 78 cases of drainage of the peritoneum.

A little more than twenty years ago recovery from diffuse septic peritonitis occurred only in exceptional cases, a diagnosis of peritonitis was practically equivalent to a sentence of death, and as a rule operation only accelerated the fatal termination. Scarcely any other disease can be mentioned, the mortality of which has been so greatly reduced by changes in treatment, and there is no doubt that great progress has been made in the treatment of all forms of peritonitis, more especially during the last ten years. Ten or fifteen

*Read before the Academy of Medicine, Toronto, Jan. 7th, 1913.

years ago operation was undertaken only in cases of diffuse peritonitis in a very advanced stage, already complicated by toxemia, in which the prognosis was therefore practically hopeless. Improvement in methods of diagnosis has resulted in patients coming under the observation of the surgeon at an earlier stage of the disease, in many cases within a few hours after the onset of the symptoms. The extensive experience of a large number of surgeons has conclusively proved that a rational operation, undertaken at an early stage, when the condition is still comparatively localized, will save many lives. There is up to the present no effective medical treatment of diffuse peritonitis, and the general reduction in mortality shown by recent statistics indicates that the advances in modern surgery have rendered recovery possible in a condition which was formerly regarded as practically incurable.

The most common form of septic peritonitis is that associated with disease of the vermiform appendix, and the increase in the knowledge of the pathological anatomy and symptomatology of appendicitis has therefore greatly contributed to the reduction in mortality. The next cause in order of frequency is perforation of ulcer of the stomach or duodenum, the prognosis of operation in both these and the appendicular cases being fairly good. Other conditions which may result in peritonitis are perforation of the intestines or gall bladder, typhoid perforation, wounds of the abdomen involving the digestive tract, and infection extending to the peritoneum through the Fallopian tubes.

The most severe forms of peritonitis are that associated with spontaneous or traumatic perforation of an abdominal viscus, and that originating from the appendix, both of which rapidly become generalized. In regard to gonorrheal peritonitis a distinction should be made between that due to rupture of or leakage from a sterile pyosalpinx, and that due to rupture of a pyosalpinx containing active gonococci or streptococci. We then have an acute, virulent, diffuse peritonitis, due to leakage from a tube recently infected by the gonococcus. This variety of gonorrheal peritonitis is illustrated in the case of a patient who came under my observation some years ago.

She was a young married woman of twenty-six, who was infected by her husband. Two weeks after infection she developed a pelvic peritonitis, which in four days had become diffused throughout the abdomen. On the fifth day she was acutely ill with rigidity of the entire abdomen, the temperature was 105 degrees F., and the pulse 140. The abdomen was opened and drained. Her symptoms were septicemic, and she died three days later.

If in a case of acute gonorrheal peritonitis there is no improvement in the general and local conditions in the course of a few hours, operation should be undertaken without delay.

In considering the prognosis of peritonitis resulting from perforation of the gall bladder, which is usually assumed to be extremely grave, a similar distinction should be made between that due to perforation of a gall bladder, the contents of which may be regarded as sterile, and that originating from perforation of a gall bladder containing pus. The former is comparatively benign, whilst the latter is an extremely malignant and dangerous condition. Another factor which influences the prognosis is the fact that the bile appears to exert an unfavorable influence upon the serosa, considerably reducing its capacity for resistance to the invading micro-organisms. The same may be said of the contents of the small intestine, after perforation of which the peritoneal serosa exhibits severe changes.

In 1910 Clairmont and von Haberer[6] published a case in which peritonitis supervened without perforation of the gall bladder. A similar case was subsequently reported by Schievelbein[7], and Doberauer[8] has recently reported two further cases. They attribute the condition to an abnormality in the macroscopically normal walls of the biliary duct, in one case apparently due to old biliary stasis; in one to gangrene of the bladder, in one to non-perforating traumatism, and in the fourth case to infection.

Surgery is the only treatment for typhoid perforation peritonitis. Unfortunately the diagnosis can very rarely be made before operation, but an operation at the earliest possible moment after its occurrence will save the lives of many patients. Forbes Hawkes[9] is of opinion that mortality would be considerably reduced if operation could invariably be undertaken within two hours after perforation, and that recovery would probably result in at least 50% of cases, provided toxemia was not present. Operation is indicated by slight muscular rigidity and tenderness in the right iliac fossa or around the umbilicus. Some years ago I reported recovery following operation eighteen hours after perforation in a case of typhoid.

As regards the peritonitis due to wounds of the abdomen involving the digestive tract, Siegel[10] states that operations done within the first four hours have a mortality of 15.2 per cent., in from five to eight hours 44 per cent., in from nine to twelve hours 63 per cent., and after twelve hours 70 per cent.

I should like to refer briefly to pneumococcal peritonitis, which is a very rare condition, and may be primary or secondary. Net-

ter[11], who examined 140 cases bacteriologically, found the pneumococcus in two cases only. In this variety of peritonitis it is advisable to delay operation until an abscess has formed, as fatal results have frequently followed operation in an early stage. The treatment then consists of incision and drainage.

The variations in the application of the term "diffuse septic peritonitis" have led to much confusion. The results of pathological investigations indicate that in acute infection of the peritoneum general diffusion of the exudation throughout the peritoneal cavity rarely occurs, and that in such cases, more especially those associated with perforative appendicitis, the internal organs, with their ligaments and mesenteric attachments, tend to prevent and delay extension.

In regard to peritoneal infections after perforative appendicitis, Kron[12] distinguishes diffuse pelvic peritonitis, diffuse unilateral peritonitis, unilocular peritonitis and multilocular peritonitis. Rauenbusch[13] distinguishes a supra-omental and infra-omental form, extension occurring from above downwards and from below upwards respectively. The most common form is that limited to the portion of the peritoneal cavity below the transverse colon.

Formerly, we were accustomed to hear of post-operative peritonitis, but this should never be allowed to occur. Scrupulous attention to technique, and above all, the covering of the hands of the operator by rubber gloves during operation, has added greatly to the safety of peritoneal operations. By substituting asepsis for antisepsis the defences of the serosa are preserved in their integrity. The perfection to which technique has now been brought prevents the entrance into the peritoneal cavity of germs from the digestive tract, the gall bladder, the tubes or the ovaries. This includes the carrying out of the greater part of the operation before the opening of the septic cavities, reduction to a minimum of the time during which they are open, and exact limitation of the field of operation.

It may be interesting here to mention that De Paoli and Callisti[14] claim that they have considerably improved their operative statistics by the injection of nuclein of soda thirty-six to forty-eight hours before the performance of laparotomy, and that in a series of more than two hundred laparotomies for various abdominal conditions they have had one death only from septic peritonitis. Arcangelo[15] reports thirty laparotomies in which he has employed the same method, without a single case of post-operative infection.

To prove that this is unnecessary, I may say that I can give a series of more than three hundred laparotomies done for various

abdominal conditions, exclusive of disease involving the gastro-intestinal tract, without a death, and without any precautions other than careful attention to technique.

They claim, also, that these injections are useful as a test of individual resistance to infection. A violent reaction with toxic symptoms, and with only slight leucocytosis or no leucocytosis at all, indicates that resistance has been reduced to a minimum, whilst a moderate general reaction and marked leucocytosis indicates that the defences are powerful, and that operation may therefore be undertaken with a favorable prognosis. Their investigations have shown that the injections increase the bactericidal properties of the serum in regard to the colon bacillus, but have no influence on the streptococcus and staphylococcus.

Mortality has recently been very much reduced by the early recognition of appendicitis, which is the most common cause of peritonitis, and the removal of the appendix before the inflammation has extended to the peritoneum. In the rare cases in which the onset of peritonitis is coincident with perforation of the diseased appendix, disease of which has previously been latent as regards the production of symptoms, operation should be undertaken before inflammation of the serosa becomes very severe and extensive. I should like here again to emphasize the importance of a very rapidly performed operation. A diagnosis of the probable cause of the peritonitis should be made before the commencement of the operation, and during the operation it should be removed as promptly as possible.

All surgeons and the majority of physicians are now agreed that operation is invariably indicated in all cases of diffuse peritonitis. The only exception to this rule is pneumococcal peritonitis, in which, as previously stated, it is advisable to wait for the formation of an abscess. If no contra-indication is present laparotomy should be undertaken without delay in all cases in which diffuse peritonitis is suspected, even if pus cannot be demonstrated. Early operation has frequently revealed the presence of advanced peritoneal inflammation and purulent exudation in cases in which the only symptoms were localized pain and rigidity. If, in such cases, measures for the relief of pain only had been adopted, the condition would probably have become so advanced that little benefit could have been expected from operation. Up to the present, the so-called "muscular defence" is the only generally recognized early symptom, but the general condition of the patient may be of assistance in early diagnosis.

A very important factor in the prognosis after surgical intervention is the defensive reaction of the peritoneal serosa, which renders it possible for it to deal with a considerable amount of septic material. Prognosis is also obviously more favorable if operation is undertaken before the onset of toxemia, and before the resistance of the patient is seriously impaired. Rutherford Morison[16] states that the prognosis is good if the heart is strong, the pulse of good volume and not over 100, but that it is invariably bad if cyanosis is present, the extremities are cold, and the pulse is over 120.

There has recently been a considerable amount of discussion as to whether all cases of peritonitis, without exception, should be operated upon or not. Some are of opinion that if there is little or no hope of saving the life of the patient relief of pain only should be attempted, whilst others maintain that it is absolutely impossible to be certain that recovery may not follow operation, even when a patient is apparently moribund. It must be said that there are cases of ultra-septic infection of the peritoneum in which operation is practically useless. These cases run a rapid course, and the defensive reaction of the peritoneum is so slight that they may be described as septicemia rather than peritonitis. Even in these desperate cases, however, operation is indicated if it represents the only chance for the patient, in spite of its almost invariably fatal results, and in some of these cases, operated upon by me when the patient was practically *in extremis,* recovery has resulted. It cannot be too strongly emphasized that delay in operation is most frequently responsible for the fatalities which occur. In cases which are too far advanced to allow of removal of the cause of the peritonitis, a certain amount of relief may follow drainage of the abdomen by means of one or two small incisions.

Increased simplicity and rapidity in operation have undoubtedly greatly contributed to the reduction in mortality. Twenty years ago extensive flushing and evisceration were practised, the mortality being from 40 to 50 per cent., but it is now unanimously agreed that these severe methods of treatment have had their day, and are contra-indicated.

Technique.—As regards the incision, if a diagnosis has been made, it is of course made over the site of the primary lesion. In doubtful cases it should be made in the middle line, immediately below the umbilicus. If this reveals no lesion, it is easily prolonged in an upward direction, so as to expose the stomach, duodenum and gall bladder. In doubtful cases, Rutherford Morison excises the umbilicus by an elliptical incision, opening the abdomen in the

centre. During operation the patient should be kept warm, and unnecessary manipulation of the intestines avoided. The details of the technique are of far less importance in relation to the results than the time which has elapsed since the onset of the symptoms.

Amongst the most important factors in the improvement of the results of operation are:

1. The general adoption of Fowler's semi-sitting position, which facilitates drainage of the peritoneal cavity.
2. The injection of large quantities of saline solution, either by the subcutaneous or transrectal method.
3. Lavage of the stomach.
4. Reduction of the duration of the operation to a minimum.

The objects of the operation are: (1) Removal of the primary focus of the disease, from which the peritonitis has originated, e.g., a gangrenous or perforated appendix, or closure of a perforation; (2) to provide for drainage. The latter tends to prevent the further resorption of infective material into the blood, whilst the reduction of intra-abdominal pressure facilitates respiration and circulation. With the object of increasing the rapidity and simplicity of the operation, some writers have recently recommended that, under certain circumstances, the removal of the cause of the peritonitis should be abandoned, but it is still the general opinion, in which I concur, that the appendix should be removed in practically every case of appendicular peritonitis, and all pus pockets broken up, the operation being carried out with the least possible manipulation of the peritoneum.

The question as to how the exudation shall be dealt with after the cause of the peritonitis is removed has given rise to a considerable amount of discussion, the alternatives suggested being as follows:

1. That it should be left in the peritoneal cavity.
2. That it should be flushed out.
3. That it should be mopped out.
4. That flushing should be practised in some cases, mopping in others.

The answer to this question is obviously dependent upon the importance which is attached to the thorough cleansing of the peritoneal cavity from the septic products present in it.

In deciding as to the respective merits of the moist and dry methods of cleansing the peritoneal cavity, it is of the utmost importance that the characteristics of the normal and pathological serosa should be fully appreciated. Von Haberer and Clairmont[16]

have shown that the peritoneal serosa manifests the greatest capacity for resorption at the level of the sub-diaphragmatic spaces, and Noetzel[17] has demonstrated its defensive reaction in regard to infection. The great omentum, which is very movable and is supplied abundantly with lymphatics, plays an important rôle in the defence of the peritoneum, as does also the natural tendency, which is present in many instances, for the inflammation to become encysted. One of the great advantages of the dry method, as compared with that of flushing out the peritoneal cavity, is that it occupies much less time, and thus tends to minimize shock.

Murphy and other American surgeons are of opinion that the one essential point is that the primary cause of the condition should be removed with as little delay and injury to the peritoneum as possible, and with a minimum amount of narcosis. As the exudation itself possesses bactericidal properties, and is therefore an important factor in defence, it appears inadvisable to attempt thorough cleansing of the peritoneal cavity. Murphy has accordingly abandoned both flushing and mopping, believing that these measures tend to reduce the protective forces of the serosa, as represented by the leucocytes, and leaves the toxic material which still remains in the cavity to be dealt with by the natural resistance of the serosa. Bauer[18] recommends that the fibrinous or fibrinopurulent deposits, which are observed on the intestines in some cases, should also not be interfered with.

As opposed to Murphy's opinion, some surgeons, including Körte, Kochler[19], Lennander[20], Von Eiselsberg[21], Bruns[22], Kümmell[23], Rehn and Noetzel[17], still maintain that great service is rendered to the organism by removal of as much of the septic material as possible, and that whilst flushing is suitable in some cases, mopping is preferable in others. Rutherford Morison reserves cleansing the peritoneum for cases in which operation has been done at an early stage, and there has been extensive extravasation into the peritoneal cavity, as in rupture of a viscus.

Some surgeons, including Bond[24] and Blake[25], whilst not in favor of flushing as a routine procedure, recommend it in cases in which foreign material other than pus is present, such as particles of food and feces.

I am personally thoroughly in accord with Murphy's opinion in this regard, and abandoned the practice of flushing out the abdomen many years ago. Neither am I in the habit of mopping out the pus; but my object in these cases is, first of all, to remove the cause of the peritonitis, and secondly to provide drainage.

Since adopting this method my results have been infinitely better than they were when I wasted time in flushing out the abdomen.

In regard to drainage, Lücke[26] was the first to insert a large drainage tube in Douglas' pouch in a case of peritonitis. The majority of surgeons are of opinion that it is advisable to make provision for the escape of the septic products left in the peritoneal cavity and of any exudation which may subsequently form, but that the arrangements for drainage should be as simple as possible, consisting of one drainage tube in the area of primary infection, and another in Douglas' pouch. Cigarette drains are preferable to unprotected rubber tubes. Murphy, however, insists on the importance of tubular drainage. At the meeting of the British Medical Association in 1911, Mr. Leonard Bidwell[27] recommended rectal drainage, which I consider very objectionable.

The general rule that drainage tubes should be left in position until secretion ceases, or has at least appreciably diminished in quantity, is not applicable to diffuse peritonitis. It is a difficult question to decide how long drainage should be continued in any given case, owing to the fact that purulent secretion persists almost as long as the drain remains *in situ*, indicating a possibility that its presence may contribute to the continuance of the suppuration. Noetzel recommends that the drainage tubes should be frequently changed, the tube inserted on each successive occasion being of smaller calibre than the one preceding it. He believes that in this way secretion is gradually reduced without mechanical irritation, and that contraction of the granulation canal is rendered possible, without sudden occlusion of its orifice.

According to Hartmann[28], the chief indication for drainage is the presence of non-resorbable particles, such as gangrenous serosa in contact with a gangrenous appendix. Blake[29] gives the following indications:

1. Drainage should be employed only in the presence of necrotic material, which may form a nucleus for infection.

2. If drainage is necessary, a large drainage tube should be used.

3. The drainage tubes should remain in position until all necrotic material has escaped, and then promptly removed.

Gauze tamponnage is contra-indicated in these cases. The softening effects, together with the increase of inflammatory reaction and of secretion, which are so beneficial in phlegmonous processes, are injurious in septic peritonitis. Another harmful result is the compression of the intestinal coils necessitated by the space which it occupies.

In certain rare cases drainage may be unnecessary, and some have gone so far as to practise complete closure of the wound in cases in which the peritonitis is not very far advanced, and the septic contents of the cavity are not very toxic in character.

Amongst those who are in favor of primary closure of the wound are Bauer[18], Rotter[30], and Grant Andrew[31]. Hartmann and Blake[29] also report good results from it in cases operated upon at a very early stage. Bauer, who removes the pus either by flushing or mopping, uses the method almost exclusively in cases in which the pus is entirely free and encapsulation has not occurred. He states that in his experience it has the following advantages:

1. Intestinal peristalsis returns much more rapidly.
2. Attacks of vomiting are rare and soon cease altogether.
3. Convalescence is shortened, and the patient is therefore able to resume his occupation more quickly.

Rotter also has abandoned drainage, with the following exceptions:

1. Cases in which there is a bleeding point which cannot be arrested.
2. When there is loss of peritoneal substance.
3. When the peritoneum is purulent and necrotic.
4. When there are budding surfaces covered by granulations.

The operators mentioned above practise either flushing or mopping out of the exudation from the peritoneal cavity in cases in which drainage is not employed.

My own practice is to use a combination of cigarette drains and rubber tubes. When operating in a case of septic peritonitis due to appendicitis, I put a cigarette drain down to the site of the appendix, and then make a small suprapubic opening, and insert a split rubber tube, containing a small piece of iodoform gauze, into Douglas' pouch. In early cases I have frequently passed a cigarette drain down from the inguinal wound, along the side of the pelvis, and into Douglas' pouch, without making a second incision. This method is undoubtedly sufficient in many cases, and drainage introduced in this way should give less likelihood of troublesome adhesions.

(*To be continued.*)

STERILIZATION AND OTHER INTERESTS

By James S. Sprague, M.D., Perth, Ont.

In this, our Province, which we claim as the ideal, the banner Province of our Dominion, we must admit that we, although loyal to the traditions, history and institutions of the mother country, are principally the copyists of our republican and near cousins, even more so than they are copyists of the same mother land. The lessons afforded us by our neighbors' failures and successes in education, and especially in interests which relate to our profession, are worth much study, and the Carnegie Bulletin literature is very faithful in criticism, praise and censure. The indifference with which our profession exercised itself when Still's cult was heralded and allowed to assume a name, is now being realized by the regular profession, and it is apparent, evidently so, that Flexner has had to mark *commercialism* on the walls of its colleges. Yet we, in our fair Province, not heeding this lesson, are, through the indifference and ignorance of our lawgivers, allowing this cult and its first cousin (which it is needless to designate) an existence.

If one learns, as he should, to avoid blunders by the mistakes of another, our Province and our Dominion have in such cheap cults learned, or should learn, many lessons, unless education is a burlesque.

I may state that, during practice—commencing in 1869—it has been my sad duty to be present on three different occasion in the capacity of accoucheur-in-chief for three idiotic unfortunates. It has been much more grievous for me during many long years to meet such fruit of the womb, who have been, and ever will be, a burden to their keepers, and who, no doubt, will be the propagators or passive factors in the reproductive acts in furnishing inmates for our Houses of Refuge and other safe receptacles for undesirables. From *Med. Summary* (of which journal I am a regular contributor) I present a late contribution:

> At least eight States now have laws providing for the sterilization of feeble-minded and certain criminal types. Many other States are preparing to adopt laws to this effect. Indiana was the pioneer in this movement, and has given it a pretty thorough try-out. The operation of vasectomy is almost painless and does not deprive the individual of his desire or capacity for sexual congress; it only inhibits his ability to procreate.

> When the whole subject is viewed from a practical point of view the arguments for sterilization of the mentally defective seem greatly to outweigh the sentimental reasons advanced against it. Many inmates of institutions for the feeble-minded could be kept safely at their homes and help to earn their own living were it not for the opportunity to reproduce their own kind which such liberty would give them. Considered in all its various aspects, it would seem that the most practical plan for the elimination of the feeble-minded strains should judiciously combine the methods of sterilization and segregation.

Yet our newspapers tell us, when a fair representation of women waited on Sir James Whitney—and their petition favored the interests above named (if my recollection of the item is correct)—the deputation did not secure the promise that "the subject would be taken into deep consideration and interest." Oh, no!

It is our belief that the Holstein Breeders' Association delegates would have been more knightly received, and promises and pledges would have been given. It is plainly the duty of us, learned in Medicine and in the interests of Public Health—the greatest of all interests—that we educate, yes, teach, those of our legislators who are ignorant in regard to such great movements, that these movements tend to lessen the supply for our asylums, prisons, criminal courts and refuges for the weaklings and undesirables. To me—and to any observer who takes time to think—the immense and ever-increasing demand for asylums for the degenerate class, which is rapidly multiplying, is a sad reflection on our national education in laws of health—in brief, our National Boards of Public Health. It is needless for me to refer to statistics, in fact, to an illustration with which, no doubt, you are well acquainted. I refer to a Pennsylvania marriage, which dates from a period nearly one century ago, and the result of this marriage of two outcasts has cost the commonwealth many thousands in money; has filled many jails, asylums, and not one cent in taxes have their progeny given to the treasury or added to the wealth of the nation.

Not long since there died in this Province a man whose merits as a public servant we knew, whose merits our papers justly named. Yet he, whose history I knew, was wise, inasmuch as he, evidently knowing certain mental weaknesses as characteristic of his family, declined to let our country have or to leave any possible degenerates to bring dishonor on his hallowed name.

In any municipality within this Province there can be segre-

gated a more or less closely related body of imbeciles or weaklings, to whose numbers there are made from the outside communities many additions, which, as regards breeding capacity, are not eclipsed by the ringleaders of the original pack. I have, in different communities, seen groups of these half-civilized and demented creatures, harmless, wandering and brainless, and well considered as outcasts, whose survival is a mystery, and to whom education would prove as encouraging as to the Hottentot; and yet, like rabbits, they propagate, and it is no one's business if they do—so says the law.

The petition herein referred to—presented by women principally—considered the advisability of the requiring of the certificate of health and freedom from sexual disorders, not forgetful of hereditary troubles, to be furnished by a regular practitioner in medicine, to the contracting parties in marriage. It is needless to state that this petition, embodying in a sense that heretofore named, was not considered, although several States require such certificates, and the Church, too, is arousing itself, even announcing the great necessity of such certificates, if we want to preserve mankind and keep sanity and health in the supremacy. It is honesty and not pedantry that prompts when one who has witnessed struggles and conditions tells his story, especially so when our country's interests are in the balance and our legislators are not versed in these vital interests and need our teachings.

Gellius, in his *Noctes Atticæ*, tells us very truly, and with the apology my writings are submitted: *Earum proprie rerum sit historia, quibus rebus gerendis interfuerit is qui narret.*

The considerations and interests, national, herein named are those calling for more than passing notice, and are promulgated by our fellows in practice for no selfish ends, and the necessity for action is no greater than in the past. One belief is to the effect that there will arise, at an early date, public concern which will arouse those in office, and who frame our laws, to do the right thing at the right moment, resting assured with the fidelity of our profession in the work,

"Festinare nocet, nocet et cunctatio sæpe,
Tempore quæque suo qui facit, ille sapit."

"None but the pure in blood should be allowed to propagate" should be in large type, and should be named in the statutes of every civilized land. It is an opinion of careful observers—better still, a belief after careful and prolonged study—that every man who has gonorrhea should be castrated. Why? Because statistics

tell us that nearly 85 per cent. of abdominal operations in women are due to the infliction from some "ovary"-caused disease, and no man so diseased has any right, says Heffner of Bellefontaine, Ohio, to endanger the life of your daughter or mine, nor her health. The laws of a few States require gonorrhea cases to be designated "communicable," and every doctor to report such cases to the nearest public health officer.

"He that sinneth let him fall into the hands of the physician," says the apocryphal Ecclesiastes, for "there is a time in their hands there is good success," and he "whose blood—which is his life—is touched corruptly, or even his own pure brain—which some have vainly supposed was the soul's frail resting-place"—must learn that "He has given men skill that He might be honored in His marvellous works." Wouldst those eyes, Oh, young man, made to behold, unabashed, God's works, God-like as thou art, born in purity, but behold thyself, defamed, polluted, when ensnared by her on whose form thou hast fed, whose wilful moods will change into, and as do the beasts of the jungle?

Wilts thou have thy bones gnarled, pitted, pierced and twisted? If not, remember "that violent delights have, too often, violent ends, and in their triumph die; like fire and powder, which, as they meet, consume" soul and body.

In the Montreal address of Dr. Abram Jacobi, of New York, (made in 1905), we find these words: "Wutzer was, like Fournier and Erb after him—perhaps even more so than they—a great believer in the ubiquity of syphilis. With his twinkling eyes, he would look up to us, suggesting that 'everybody is a little syphilitic,' and many there are of similar credence."

Libera nos e malis et morbis ossium.

Hodgkin's Disease. —James Dudley Morgan (*Medical Record*) says as to the treatment of this disease that permanent improvement, either from surgery or medicine, cannot be looked for. The complete removal of the glands or their enucleation is invariably followed by recurrence, either at the former site or in some other region. The giving of arsenic in gradually increasing doses, as recommended by Nélaton and endorsed in the writings of Billroth, is still the practice of to-day, and is one of the very few remedies showing any actual benefit. The X-rays should always be tried, as they reduce the swelling and retard new developments; unfortunately, on cessation of the treatment, the growths recur, and treatment has to be again instituted.

THERAPEUTIC NOTES

Fractures.—W. Bartlett (*Boston Med. and Surg. Jour.*) gives the following indications for the open treatment of fractures: 1. When a leg case must be gotten out of bed early; (2) old cases of non-union or *extreme* malunion. (3) This treatment is desirable in all fresh, widely-open fractures if shock be past. (4) Chronically infected cases, in which the bones lie bare. He further states all compound wounds, whether suppurating or not, are to be packed and allowed to granulate. The patient must be a good surgical risk.

Typhoid Fever.—W. N. Johnson and C. C. Watt (*N. Y. M. J.*) treated sixty-five cases of typhoid fever during the recent epidemic in Germantown, Pa., by the milk-free method. The diet treatment consisted of broths, soups, gruels, gelatin, eggs, sugar of milk, and butter. In the opinion of the authors, this treatment was the cause of the low percentage of cases with diarrhea, distension, hemorrhages, and the absence of perforations. Milk was only administered in the convalescent stage, and great reliance was placed on gelatin given *ad lib.* Gelatin lessens the tendency to hemorrhage, and should be immediately stopped if venous thrombosis occurs. Out of the sixty-five cases treated, there were only four deaths, a mortality a trifle above six per cent.

Inoperable Cancer.—Sir A. Pearce Gould (*The Lancet*) discusses this under two headings: (1) The general treatment of cases of inoperable cancer; (2) the special treatment of cancer other than by operation for its removal. Physical and mental rest in the first is emphasized, and strict cleanliness is to be observed. Simple diet, easily digestible, varied, and total abstinence from all alcoholic liquors are essential, as well as regular action of the bowels. After referring to palliative operations, the author says of X-rays that by the use of these he has seen foul ulcers cleaned, and some healed entirely. To the action of radium the following have responded favorably: Adenocarcinoma of the abdominal wall, malignant growth of the superior maxilla, tumor of the parotid gland, sarcoma of the femur, and a malignant growth in the right groin.

Oral Treatment in Infectious Diseases.—C. Everest Field (*Medical Record*) calls attention to the neglect of oral treatment in infectious diseases, and emphasizes the importance of seeing that the minutest instructions as to the care of the mouth are carried out. At least twice daily the nurse should cleanse the teeth, and rinse or swab out the mouth before and after feeding, with a stimulating alkaline antiseptic solution. The complications will be fewer, less self-infection, and the patient will feel grateful because the food will taste better and the appetite will continue to be good. The mouth may be laden with millions of bacteria, and it does not seem rational treatment to carefully select the food, and pasteurize the milk when it has to pass through a mouth which is allowed to remain dirty.

Pelvic Inflammations.—H. Chapple (*The Lancet*) has applied the autoinoculation treatment in cases of bilateral chronic salpingo-oöphoritis with a very definite history of gonococcal infection. This procedure is along the lines of the now generally accepted theory that an increased blood supply to an infected area causes the liberation of an increased quantity of toxins into the general circulation, thus producing an autoinoculation with the product of the actual offending organisms. The desired pelvic congestion can easily be produced by electric lamps suspended from a cradle surrounding the patient's pelvis only. By this means the temperature can be raised gradually to what the patient can bear; and in a few days it can be brought to 180°, when the patient is submitted to this for a half hour.

Pernicious Anemia.—Crofton, Chicago, knowing these patients suffer with achylia, believes the HCl treatment is pure substitute therapy. He administers 15 drops of the strong acid each meal. In three cases cured the achylia persisted; therefore, HCl must be taken off and on. In fourteen cases treated, he has noted marked improvement. In Europe, Hess has published good results from HCl and high protein feeding.

Hemoptysis.—Samuel Blumenfeld (*Merck's Archives*) considers hemoptysis is a symptom indicating some bronchial (especially the smaller bronchi) blood dyscrasia, pulmonary or cardiac disease. After the cause has been ascertained, where possible, the

treatment should aim first to stop the bleeding, and if severe, the patient must be kept as quiet as possible. Rest is of prime importance. If the patient is frightened the fears should be allayed. Talking should be prohibited, and the patient put to bed with head and shoulders elevated, and this position maintained. In severe hemorrhage, with restlessness, a hypodermic injection of 1/4 grain of morphia, and atropia 1/100 grain, should be given. In many cases this will check the hemorrhage almost instantly. An ice-bag applied over the precordia lessens the rapidity of the heart and lowers blood pressure. Ice is prescribed if hemorrhage recurs after the doctor leaves the bedside. Blumenfeld finds calcii lactatis ʒijss in xx powders every three hours of value. Also the following: Stypticini, grs. x.; plumbi acetatis, grs. xx.; pulv. digitalis, grs. x.; pulv. opii, grs. v., divided in ten pills—one pill every three hours. When vomiting occurs, he prescribes anesthetin, grs. three, with calcium lactate, grs. vii. Food should be cool, nourishing and non-stimulating.

Syphilis.—Lancelot Kilroy (*The Lancet*) gives his experience in 1,000 cases of syphilis with Salvarsan, in the Royal Naval Hospital at Plymouth. Mercurial treatment is carried out in this hospital during the whole time the patient is an inmate. The only days on which mercury is not given are those on which the patients receive their injection of Salvarsan. No Salvarsan is given in cases of heart disease, albuminuria, diabetes, advanced tabes and general paralysis of the insane. Two doses are given in all cases unless contra-indicated; and a third, and more rarely, a fourth, in resistant cases. Injections were given 2,147 times. No deaths occurred; 17 cases received only one injection; 865 cases, two; 75, three; 40, four; three, five injections. The reactions on the whole were mild, the great majority showing no rise of temperature. Vomiting was fairly common, but rigors were rare. It was noticed the moister the lesion the more rapid was the effect. The patients were prepared for Salvarsan as for an operation—diet, aperient, enema, etc.—no food three hours before and none for four hours after operation. The method of administering the Salvarsan was with Emery's apparatus, with special needle made of tantalum fixed in a modified McDonagh's holder, supplied by Allen and Hanbury. So far about 50 per cent. of the cases that have been examined three months after operation have been negative. It is too early for precise details.

Fractures.—James B. Maunell (*The Lancet*) read a paper on "Mobilization and Massage" in the treatment of fractures before the Medical Society of London, England, January 13th. Lucas-Championnière was the pioneer in this method of treatment. His book was reviewed in these pages some months ago. His methods have been developed by others to include other forms of recent injury, accidental and post-operative, to almost every form of case in which massage forms an integral part of treatment. The massage consists of slow, light, rhythmical stroking in the neighborhood of the injury, the movement being a caressing one—a mesmeric pass—avoiding scrupulously the actual site of the injury. The dose of mobilization must be meted out with care and accuracy, and it consists of two elements—passive movement and active movement—actively relaxing the part when the dose of passive movement is being administered. "Movement is life" is the axiom underlying this treatment. This massage attempts, through reflex action through the nervous system, to restore the tone of the vaso-motor system. Pain and spasm disappear. A severe Colles' fracture has been restored to perfect movement ten days after injury, but, of course, not to perfect strength. A ballet-girl, after fracture of the surgical neck of the humerus, has taken part in rehearsals in three weeks. By this method, Mennell says, a fortnight should suffice for the restoration of a patient who has dislocated his shoulder. As a cure for insomnia, the stroking massage is unrivalled. In neurasthenia, its success is most striking.

Ocular Headaches.—Aaron Bray (*N. Y. M. J.*) says that headache is the most common ill that human flesh is heir to. These patients soon learn how to treat themselves; and as most of the headache preparations on the market have for their basic constituent some coal tar product, temporary relief is soon secured if taken in sufficient quantities. The effect is soon transferred to the nervous system, and in time weakening the cardiac musculature. The physician, when consulted by these patients, generally adopts this usual mode of treatment, at least in ninety per cent. of the cases. Of course, under the physician's care, the danger of overdose is somewhat lessened. Bray claims the physician does not often think of an error of refraction, or eye-strain that requires correction. Then the patient drifts to the optician, who is absolutely unable to cope with the situation, as it is not only essential to correct any existing error of refraction, but it is of the utmost importance that the equilibrium of the muscular apparatus be estab-

lished wherever any disturbance exists. Bray's study of several thousand cases teaches him that fully 80 per cent. of chronic sufferers from headache can attribute their trouble to some faulty optical condition that can be corrected by the man who is efficient in that work. After the optical error has been corrected, if the sequelae of a protracted headache are still present, hygienic, dietetic, and tonic measures must engage the physician's attention. The moral is that physicians should send these cases to the oculist early.

Defects in Urethra.—Muller (*Deut. Med. Wochen.*) has obtained good and satisfactory results in one case of traumatic and four cases of gonorrheal strictures by extirpation and transplantation. He covered the defect by a Thiersch skin flap, thus forming a new urethra by suturing the edges over a thick Nelaton's catheter. In two of the cases a small fistula formed.

Fever of Tuberculosis.—W. Nieveling (*Deut. Med. Wochen.*) uses hydropyrin Grifa, a watery solution of lithium salts of acetylsalicylic acid, substituted for the sodium salicylate, in the Hoedemaker pills, in the treatment of the fever of tuberculosis. He finds it reduces the fever gradually within three weeks without harmful side actions. About 250 pills are necessary to produce the desired effect—three to four pills three times a day. They are given one to one and a half hours after meals.

Ozena.—G. Mahn (*Presse Medicale*) says paraffin yields benefit by compressing the glands of the mucosa, thus preventing them from secreting the purulent and fetid fluid generally found, and not by diminishing the excessive air spaces in the nasal cavities. Nasal lavage should be followed by spraying with an antiseptic solution of lactic ferments. Paraffin injections should be practised in all cases except where atrophy of the mucosa has reached its last stages. It should be limited to the inferior turbinates and the floor of the nasal cavities. Injections into the septum have caused unpleasant results. Any general infection or sinusitis must be overcome before these injections are used. Avoid injecting into the head of the inferior turbinate at first; begin farther back. The injection should be controlled by visual observation of the mucosa. The amounts injected should not exceed 0.5 c.c., and frequent treatments given. The paraffin should be friable and the instrument heated.

Reviews

The Principles and Practice of Obstetrics. By Joseph B. DeLee, M.A., M.D.; Professor of Obstetrics at the Northwestern University Medical School; Obstetrician to the Chicago Lying-in Hospital, etc. With 913 illustrations, 150 in colors. $8.00. W. B. Saunders, Philadelphia and London; J. F. Hartz & Co., Toronto.

This book is without doubt one of the best books ever published in America on Obstetrics. The needs of the student, and more especially the general practitioner, are carefully kept in mind. Sufficient of the scientific side of the subject is given, and sufficient references to the recent literature of the subject is provided. The subject matter of the book has been divided into four parts:

1. The Physiology of Pregnancy, Labor and the Puerperium.
2. The Conduct of Pregnancy, Labor and the Puerperium.
3. The Pathology of Pregnancy, Labor and the Puerperium.
4. Operative Obstetrics.

The discussion of division one is clear and concise, with just enough of the scientific side touched upon. In division two the conduct of labor, etc., the proper use of the anesthetic is discussed in a most thoughtful manner. The author prefers ether.

On the preservation of the perineum the author also shows his great good sense when he suggests the thought whether one should be so solicitous about the preservation of the perineum at the risk of injury to the child's brain from unduly prolonged delay at this stage. The author very properly states that the pelvic diaphragm and not the pelvic floor is the thing to preserve, save the levator ani muscle.

The operation of episiotomy is advised to avoid great tearing of the pelvic floor.

In the management of the third stage the author advises against too great haste in expelling the placenta from the uterus. The separation should be allowed to go on naturally without much massage of the uterus, unless hemorrhage is taking place. This prevents much bleeding later. This is good advice.

As to the toxemias, the author, I am glad to note, says that marked albuminuria, plus casts and blood, are the rule in true eclampsia; to the reviewer's mind this is the best test for the general practitioner, the so-called refined tests of the urine for amount of urea, etc., are useless.

Then as to the management of placenta previa, for the general

practitioner there is really only one safe procedure, Braxton Hicks method of version; all other methods, such as metreurysis, Cesarean section, etc., should be left to hospitals.

As to puerperal infection some excellent advice is given. The danger of air infection as stated by Mackenrodt is emphasized. Also the husband as a source of infection. The author suggests a division of the cases into three groups, viz.: 1, those of toxinemia; 2, those of bacteriemia; and 3, those of metastatic bacteriemia, or pyemia.

As to treatment the author advises against all local treatment, such as intra-uterine douching, digital removal or curettage, unless the patient is having uterine hemorrhage, when he packs with iodoform gauze. Only when the temperature has been normal for say 10 days does he explore the uterus.

This, though radical, is sound advice.

Operative obstetrics is also dealt with in the same thoughtful manner, and the methods suggested or advised are described in the same clear style. The illustrations are original, in many instances, helpful and well executed. The book is well printed on good paper, and reflects great credit on the publishers. Altogether the book should be more valuable both to the senior student and the general practitioner. A. C. H.

International Clinics. Vol. 4. Series 22. 1912. J. B. Lippincott Co.

To discuss all of the twenty-seven papers in this edition of the clinics would be difficult, if justice were to be done equally to all, but it is necessary to refer to the most valuable papers.

Steinhardt describes in detail his methods of treating weak feet by strapping, exercises, manipulation, boots and apparatus. He gives a classification and includes the diagnosis and furnishes from every standpoint a most excellent paper.

Wilkie, of Edinburgh, writes on "The Prognostic Value of an Immediate Examination of Peritonitic Exudates." He shows by plates and in descriptive language how it is possible to judge from smears made during an operation as to whether the prognosis is favorable or not so. This is easily arrived at by noting the relative numbers of leucocytes, microphages and germs present in the stained smear.

Berkeley, of New York, treats "Paralysis Agitans by Parathyroid Gland." He believes the defective secretion from these glands are the cause of the disease, and he alludes to tetany as another parathyroid disease. His proofs for his contention are five: (1) The disease has the marks of being a chronic chemical poison-

ing. (2) Animals from which the gland is removed may show similar symptoms. (3) Thyroid gland diseases may be complicated by paraiysls agitano. (4) Autopsy results, and (5) Success in treatment.

Anderson, of Toronto, discusses "The Treatment of Diabetes." He believes in the glucose test by the urine as a valuable one, and divides his cases into mild, moderately severe and severe according to their reaction to a definite diet. Diet is the basis of treatment, and the urine must be freed from sugar and kept so—if possible.

Baumann, of Chicago, on "The Wassermann Test" says: Salvarsan given to a case with primary lesion and negative Wassermann shortens the time for a positive reaction. This is due to it injuring the individual. Salvarsan causes fatty degeneration in cases, and syphilitic cases of an uncured nature will increase in the next decade.

A brief reference to the other papers will now be given, showing the main detail in each article.

Abrams, of San Francisco, treats his exopthalmic goitre cases by percussion on the seventh cervical spine.

High blood pressure is relieved by pot.-iodide according to Dr. Russell, of Edinburgh.

Humner, of Baltimore, extols washing out the pelvis in pyelitis, while Burnet, of Edinburgh, a more conservative physician, abides by pot.-citrate as a rule and in preference to urotropine.

Green, of Louisville, concentrates our attention on gonorrheal proctitis, while laying stress also on the general infection that may follow this germ.

Gangloff writes on Dulcamara poisoning.

Brown, of Johns Hopkins, writes a short paper, on achylia gastrica, duodenal ulcer and chronic appendicitis as causes of indigestion, and remarks on the abdominal visceral ptosis, temperature elevations, leucocytosis, effect of exercise, taché appendiculaire, coxalyia, pain or sluggishness on urination, as signs of the chronic disease.

Walsh, of New York, discusses a case of occupation as a cause of nervous exhaustion, while Irwell, of Buffalo, believes that the cure of tuberculosis lies in prevention of descendants from those infected.

Bergonignan of Evians les Bains, discusses unusual signs in normal hearts, referring to the work of Huchard.

Eves, of Philadelphia, describes how he enucleates tonsils and removes adenoids, and calls attention to the pharyngeal tonsil as a sign frequently mistaken for hysteria.

A few additional papers conclude the issue, one of which is occupied by a full and interesting account of the Rockefeller Institute.

Brain and Spinal Cord. By Dr. Med. Emil Villiger. Translated By George A. Piersol, M.D., ScD. J. B. Lippincott Co.

This well-known work by Villiger is one of the most compact and well arranged anatomies which is devoted to the nervous system.

Part I is devoted to the examination of the Brain and Cord as to general configuration, and gross anatomy. In doing this, the author has used great skill in making every part described easily identified by the reader.

Part II takes up the Fibre Tracts and is equally well written.

Part III is pictorial, and takes up serial sections of the Brain Stern.

The whole book is a splendid addition to the general works on anatomy, and is suitable for students as well as physicians.

Chloride of Lime in Sanitation. By Albert H. Hooker, Technical Director Hooker Electrochemical Company, Niagara Falls, N.Y. New York: John Wiley & Sons.

Within recent years the employment of chloride of lime in sanitation has advanced to such a degree that a book founded upon exact data bearing upon its uses would seem to be the logical outcome of the widely distributed and important information which could be collected upon the subject. Mr. Hooker, having undertaken this task, has brought together a large and valuable lot of information which sanitary scientists and health authorities will assuredly appreciate. Physicians who are local health officers will find this book of inestimable value.

Modern Wound Treatment and the Conduct of An Operation. By Sir George T. Beatson, K.C.B., B.A. (Cantab.), M.D. (*Edin.*), Surgeon Western Infirmary, Glasgow, Senior Surgeon, Glasgow Royal Cancer Hospital. Price, 2 shillings. Edinburgh: E. & S. Livingstone.

This is a small book of 106 pages, written in gratitude, reverence and indebtedness to the great benefactor of the human race, Lord Lister, whose portrait adorns the first page. There is an appreciative chapter outlining the life, personality and work of the great surgeon. The balance of the book is made up of three chapters as follows: Principles of Wound Treatment, Asepsis and Antisepsis in Surgery, Treatment of Accidental Wounds and the Conduct of an Operation. Surgeons and others will find that it has embodied essential facts commensurate with the modern advances in bacteriological science.

Cardio-Vascular Diseases. Recent advances in their Anatomy, Physiology, Pathology, Diagnosis and Treatment. By THOMAS E. SATTERTHWAITE, A.B., M.D., LL.D., Sc.D., Consulting Physician to Post-Graduate and other hospitals in New York. New York: Lemcke and Buechner, 32 West 27th Street.

This book may be considered as an up-to-date supplement of the author's well-known "Diseases of the Heart and Aorta," first issued in 1905. It consists of a series of monographs issued subsequently to 1905, now thoroughly revised and presented in book form. A good deal of space is devoted to modern sphygmomanometry, which will commend the book to physicians who have already adopted, or wish to adopt, this new and essential feature in diagnosis.

Muscle Training in the Treatment of Infantile Paralysis. By WILHELMINE G. WRIGHT, Boston Normal School of Gymnastics. Price, 25 cents. Boston, 101 Tremont St., W. M. Leonard.

This booklet or thirty-two page reprint was originally published in *The Boston Medical and Surgical Journal,* October 24th, 1912, and so great has been the demand for copies of that issue that it was decided to publish it in booklet form at the nominal charge of twenty-five cents. The explicit details make it of the utmost value, and no one who has had or who now has any of these cases should be without it. It is practically the only set of definite directions in the treatment by exercise of the conditions following paralysis.

Psychanalysis: Its Theories and Practical Application. By A. A. BRILL, Ph. B., M.D., New York. Philadelphia and London: W. B. Saunders Co. Canadian Agents: The J. F. Hartz Company, Toronto.

So widespread is the interest in the understanding of hysteria, neurasthenia and allied border line manifestations, and so different are the opinions held in the medical profession with regard to them that a book which goes into the subject as thoroughly as this of Dr. Brill deserves a good reception at the hands of the profession. Whether the author as does the originator of the sexual repression idea, Freud, places too much emphasis thereon as the essential causative factor in these conditions can only be determined by those who have large numbers of these cases to study and observe. The chapters on dreams and wit will prove especially interesting.

Dominion Medical Monthly

And Ontario Medical Journal

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COMMENT FROM MONTH TO MONTH

The Canadian Medical Protective Association has sought incorporation on Bill known as No. 89. This came up for its second reading on Monday, February 24th, when a discussion took place which required twenty-two double-column pages of Hansard to report it. With some slight alterations the Bill was reported and read the second time.

The discussion was illuminating, but a careful reading of the report would not warrant the shrieking editorial which appeared in *The Globe* of recent date. It served, however, to uncover the obsequious demeanor of *The Globe*, and to give opening to another unwarranted, wholly vicious and officious attack upon the Ontario Medical Council. Being a federal measure, applying to each and every province, *The Globe* simply went out of its way to single out and jab any particular medical council. It was an exhibition of obstinate sulkiness unparalleled.

The Canadian Medical Protective Association has now been in existence since 1901 and practically the cream of the medical profession of Canada is enrolled in its membership. Its portals are so guarded that no one but he who conducts himself as an honorable man could gain admittance.

Why this unseemly and savage attack by *The Globe* on such a

high-minded body of men, wholly unwarranted from the discussion in Parliament?

Mr. Burnham accepted the Bill if it applied to the members of the Association incorporated.

Dr. Chabot, Ottawa, the sponsor of the Bill, early gave that assurance.

Mr. Emmerson opposed it simply on the grounds that it was purely a provincial matter.

The storm arose over the clause: "To encourage honorable practice and assist in the suppression and prosecution of unauthorized practice."

This was taken to mean the osteopath in particular.

Mr. Emmerson stated he was not competent to discuss osteopathic treatment.

Mr. Henderson also took exception to the word "unauthorized," although he stated he was led to believe osteopathy was not an authorized practice in Ontario. As he said: *"In the small county that I have the honor to represent, in one small section of it there are a number who protest very strongly against the provision of this Bill."* The reader may contrast this number in a small section in a small county with 800 to 900 medical men, some with world-wide, international, national, and practically all with good local reputations. Mr. Henderson does not believe that the giving of drugs is unscientific.

Mr. Hazen could not see that the Bill aimed at either osteopath or homoeopath and considered it would be an injustice not to grant the incorporation.

Mr. Knowles opposed the Bill in strong language. He said: "There is no member of this House who has not the utmost respect for an honorable practitioner, but I do not know of any field where there is more room for a dishonorable man than in medical practice. . . . I am not attacking the medical profession, not in the slightest."

Mr. Nickle suggested "illegal" for "unauthorized." His association with medical men has been of the best.

Mr. Henderson replied: "Unauthorized practice and illegal practice are two very different things. I do not think that the osteopath is practising illegally, but his practising is not authorized."

Mr. Nickle returned: "I feel sure none of us want to give countenance to that which is improper or illegal."

No rejoinder to this. Would "unauthorized" be improper?

Mr. Knowles explained: "Every member of the medical profession with whom I had to do has been above suspicion."

Mr. Emmerson: "The very first by-law says that the object of this association is to protect its members from prosecution where such action appears to the counsel and solicitor, as well as to the committee in charge, to be unjust, harassing or frivolous."

Mr. Edwards: "This is exactly the object of the Bill."

Mr. Emmerson: "I am not assailing the medical profession, but I would not give to any body of men in Christendom the powers that are sought to be given here."

Mr. Thompson (Yukon): "Then it does not conflict with any existing provincial legislation?"

Mr. Emmerson: "Not that I am aware of."

Mr. Edwards: "Would it be proper legislation for a provincial legislature to pass?"

Mr. Emmerson: "Yes, within the province itself." Mr. Emmerson subsequently explained it was proper legislation to go before a provincial parliament.

Mr. Edwards: "I do not think any one would argue that it is advisable to have unauthorized practice going on in the country, nor do I think any one should contend that there can be anything wrong in a body of men joining together for mutual protection when proceedings are brought against them unjustly. We have the right to assume that if this association is incorporated, the members shall place on that committee, not humble or inferior members of the profession, but men who have made their mark, men who have a reputation."

Mr. Thompson (Yukon): "I desire to resent the imputation my honorable friend (Mr. Knowles) made as against the medical profession of Canada in his remarks this afternoon. I venture to say that the medical profession of Canada stands as high as any other profession in this country. It has done its share in the development of the country, especially in caring for the health of the people and establishing the hygienic conditions existing . . . throughout many of the cities of Canada."

Mr. Knowles: "I did not impute any improper motives. I spoke highly of the medical profession, the members of which do not need any defence from the honorable member."

Mr. Doherty: "I cannot see the force of the contention of the honorable gentleman (Mr. Emmerson) that this is a purely local and private matter within the province. The power of incorporation generally rests with the Parliament of Canada save in exceptional cases where the objects of an association are purely provincial in nature. . . . I would be disposed to hold that the legislation was within the constitutional power of this Parliament."

Enough of this discussion has now been given to show that all members of the House of Commons who opposed it did not, as *The Globe puts it* "with a plainness of speech, almost brutal in its disregard for the dignities of the medical profession, Parliamentarians on both sides joined in the attack, scattering phrases of rebuke and reprobation which the defenders of the profession seemed powerless to turn aside."

This stands out clearly that if either *The Globe* or members of Parliament know of any man in the medical profession of Canada who is guilty of "infamous and disgraceful conduct" they should speak out and name that man and not make these wholesale onslaughts upon the character of the Canadian medical profession in general.

It is not claimed that every member of the medical profession is above reproach, but it would be interesting to know in what interests this devilish, quill-driving, obtrusive venality on the part of a newspaper, is so persistently displayed and exerted.

THE HOSPITAL TRAIN

Upon the Atlantic Coast Line, Dr. Ch. Wardel Stiles, Hygienic Laboratory, United States Public Health Service, has recently been conducting experimental work of a rather unique character. Appreciating the advantages of out-door clinics and dispensaries as well as hospitals in cities to the poor, and knowing the disadvantages the poor in country places labored under in these respects, he thought out a plan of carrying these facilities as far as possible into the country districts. The railroad kindly reserved for him a two-compartment car, outfitted as a travelling hospital and laboratory. With one or two assistants and a nurse, Dr. Stiles carried on his work for two months. He covered a territory of seven county schools in one county, the children coming at 4.30 p.m. and remaining under observation until 1 to 4 o'clock the next afternoon. Although this experimental work was carried on along a particular line of work, people came from miles around seeking other medical and surgical aid. Dr. Stiles considers it feasible to send hospital trains into those localities which are not supplied with specialists on the eye, ear, nose, throat and gynecology. The great mass of poor country people will never have proper medical or surgical relief unless it is taken to them.

Editorial Notes

THE FRIEDMANN CONTROVERSY

There has been considerable discussion recently in the lay press and to a certain extent in current medical literature, about the new vaccine cure for tuberculosis originated by Dr. Friedmann of Berlin. Judging from the comments of those who are properly qualified to express an opinion regarding the intrinsic merits of the treatment, it must be concluded that the burden of proof still rests with Dr. Friedmann. As it often happens in matters of this kind an individual may, in the excitement of the moment, make statements and claims which are difficult to substantiate as time goes on. This has been the course of events in only too many therapeutic measures which have at first been heralded with great acclaim. No person, realizing the possibilities of modern science, would be so bold as to state that a cure for tuberculosis cannot be found; but knowing what we do of this disease and the history of its therapy it is only reasonable that we should maintain an attitude of more or less skepticism toward any remedy which has not undergone a thorough and prolonged trial. In tuberculosis the element of time is a highly important factor in determining the efficacy of treatment, as many cases improve temporarily only to suffer a recurrence at a later date.

Undoubtedly Friedmann's work awaits confirmation or refutation by other investigators and it is fortunate that he is in a country whose medical men are quite competent to analyze his data, repeat his experiments and pass judgment thereon.

Friedmann's original article appeared in the *Berliner Klinische Wochenschrift* of November 18, 1912, and apparently was in the nature of a preliminary report.—*The Post-Graduate.*

The following will be of interest in this connection:

"Like most investigators who have sought vaccines for bacterial infections, Friedmann came to the conviction that the most potent curative and immunizing powers lie in the living bacterial organism itself, and not in the dead organism as used in the method of Wright and his school. Furthermore it is obvious that such a living vaccine must be avirulent. After many years of observation and experiment, Friedmann finally obtained a stock of tubercle bacilli, which, by repeated culture and passage through animals, became entirely avirulent for the human organism. Under pressure, Friedmann ad-

mitted in the discussion that his bacillus was derived from one of the cold-blooded animals, the turtle.

After demonstrating by injections into animals and even into himself that living vaccines derived from this bacillus were entirely harmless, he began to inject these vaccines into patients afflicted with various forms of tuberculosis. After trying various ways of injection, Friedmann finally concluded that the best results were obtained by what he calls: 'Simultaneous injection'—*i.e.*, one dose injected directly into the veins at the elbow, the other intramuscularly. The intravenous injection is not followed by any local manifestation, but the intramuscular injection, *in favorable cases,* is followed by a local induration which slowly disappears. These injections are repeated at intervals of a few weeks, as many as half a dozen being sometimes administered. In advanced cases of tuberculosis, the induration disappears rapidly. Such a rapid disappearance is regarded by Friedmann as an unfavorable omen.

The remedy has now been used by Friedmann and his workers the past year or two in 1,182 cases of pulmonary and surgical tuberculosis. Friedmann offers no statistics, he merely states that after one, two or more injections, all cases of tuberculosis except those far advanced are completely cured. As proof of his claims, he merely contented himself by presenting in the course of his address a number of cured cases, the recital of which is highly impressive. For instance, he reports a case of knee tuberculosis in the advanced stage, with fungous granulations and six deep fistulæ, completely healed after two injections. He showed cases of laryngeal tuberculosis completely healed after three injections. He demonstrated various other cases of tuberculosis of the lungs, genito-urinary tract, lymphatic system, eye, skin, etc.; many cured; all favorably influenced.

It is only a short step from cure to immunization, and Friedmann has already started on this problem on an extensive scale. He has thus far vaccinated 335 children, ranging from the newly born to the age of three years. Most of these children had tuberculous surroundings, and although some of the children were injected over a year ago, in not one has tuberculosis developed. Manifestly, no definite conclusion can be drawn from this as to the immunizing power of Friedmann's remedy. One thing was surely demonstrated by these observations, both of Friedmann and his co-workers, namely, that the injection of the avirulent living bacilli was entirely harmless.

Friedmann's address is naturally tinged by copious optimism and enthusiasm and affords very little opportunity for a well balan-

ced judgment of his work. That is why we followed the discussion of his paper with perhaps greater interest than his original thesis. The expressions of those who took part in the discussion may be grouped in four classes: first, the enthusiastic; second, praising with reservations; third, mildly critical; fourth, expectantly conservative. It is interesting to note that, with one or two exceptions, those who praised the remedy were those who had actually used it. No one deliberately said that the remedy was of no avail. The largest part of the criticism came from the laboratory workers, such as Citron. These directed their main attacks upon, what to us seems the weakest part of the exposition, the admission by Friedmann that animals immunized by his vaccine did not recover, as was to be expected, although they lived more than twice as long as those that were not immunized. Others criticized Friedmann, some rather bitterly, because he refused to divulge the details of his remedy and his methods. To our mind Friedmann was fully justified in his course. Had he reserved the remedy to his own use the case would be different. He freely gave the remedy, however, to a large number of clinicians in Berlin. We need only think of the possibilities of injudicious preparation and administration by both well-meaning and unprincipled persons to appreciate that Friedmann is perfectly right in keeping the secret to himself until his method is placed on a surer footing. Ehrlich keeps the preparation of Salvarsan a secret, but we have heard of no criticism of his action. At all events, Friedmann promises a detailed publication in the near future."—*American Jour. of Surgery,* Feb., 1913.

HISTORICAL MEDICAL EXHIBITION, LONDON, 1913

Among other historical medical objects of exceptional interest that have been secured for the Historical Medical Exhibition, organized by Mr. Henry S. Wellcome, and which will be opened in London during the meeting of the International Medical Congress in the coming summer, are many personal relics of Dr. Edward Jenner, the discoverer of vaccination. These include the original lancets and scarifiers he employed during his first experiments, his case and account books, his snuff box, medicine chest and many other interesting articles. A large collection of autograph letters of Jenner's, some of unique interest have also been loaned, together with the armchair from his study and in which he died. Other objects connected with the life of Jenner are also to be exhibited including many valuable portraits of himself and family, painted at different

periods, the illuminated addresses presented to him together with the freedoms of the cities of London and Dublin, also medals, and other documents of special interest.

Concerning the history of anesthesia, many interesting relics are to be exhibited beginning with the original autograph journal and manuscripts of Henry Hill Hickman, F.R.C.S., the discoverer of the application of the principle of anesthesia by inhalation for surgical operations, which he proved by actual experiments on animals in 1823. Personal relics of Sir James Simpson, and some of the earliest forms of apparatus for administering chloroform and ether will constitute an exhibit of more than usual interest.

Those who may possess any objects of a similar character connected with the history of medicine and the allied sciences, and who would be willing to loan the same, should communicate with the Secretary, 54A, Wigmore Street, London W., who will be pleased to forward a complete illustrated catalogue to anyone interested.

ELECTIONEERING SPEECH ON VACCINATION BY SIR VICTOR HORSLEY

The *Leicester Daily Mercury,* February 1st, gives an extended report of a speech delivered on December 31st by Sir Victor Horsley, at Wigston. The report contains this reference to his remarks on vaccination. Needless to add, Sir Victor is candidate for Parliament in the division in which Wigston is situated:—

"Sir Victor proceeded to deal with the question of smallpox. Smallpox was personally communicated: it could not be carried in the air. The system of vaccination had been handicapped from the first, because it did not include re-vaccination. But a large proportion of the population now was not vaccinated. Yet smallpox was dying out. Why? Because they had such an efficient public medical service. Of half a million people who died, only 10 died of smallpox. So that the disease practically did not exist. Perhaps Dr. Millard's work in Leicester had been more striking than anyone else's. (Hear, hear.) If a case occurred all the medical officers were communicated with in the vicinity, and the disease was thus prevented from spreading. Each sanitary authority arranged that possible subjects should be medically visited at home. Now, as soon as a man felt unwell he would call in his medical man. The doctor would recognize the symptoms and then the disease would be kept from spreading. No vaccination method of protec-

tion was therefore now necessary. (Loud applause.) He could not understand all this bother about vaccination. It was clear that the Insurance Act, by providing for the visits of a doctor to the homes of the patients, had taken a great step towards the prevention of these scourges. Pneumonia, smallpox, and all these things would be stopped right at the beginning, because the doctor would be in attendance at the first."—*The Medical Officer.*

TOBACCO SMOKE

It seems to be now pretty well established that tobacco smoke has germicidal properties, possibly due to the pyridin it contains. This has been shown to be a powerful germicide. It is said in particular to have a rapidly destroying effect upon one germ, the comma bacillus. Pyridin is official in the French Pharmacopeia and is used in such conditions as asthma, emphysema, and angina pectoris, as an inhalation. It is also used in combination with peppermint in diphtheria. Experiments have also been made upon the bacillus of pneumonia which it is said to destroy. Excessive smoking, however, will produce constitutional weakening, a condition favoring most infections.

A NEW MEDICAL DEPARTURE

The apparent failure or surrender of the British Medical Association to the Lloyd George Insurance scheme has resulted in a cleaving process in the ranks of solid medicine in Great Britain. One result is the organization and creation of new bodies in different parts of the Kingdom. In one place—Reading—the news is that several medical men have formed themselves into a joint stock company to provide medical attendance, advice and drugs to residents of Reading who shall patronize this new joint stock medical association. This is, certainly, a startling innovation in the medical world, and demonstrates the growing tendency to commercialism in a profession which is being eaten up by charity. But what can the medical profession expect from the state which licenses them and then permits all sorts of quacks and patent medicine vendors who choose to exploit the people?

News Items

Dr. J. B. Coleridge has been elected Mayor of Ingersoll.

Dr. R. E. Davis, Ivy, Ont., has located in Horning's Mills.

Dr. Charles O'Reilly, Toronto, has sailed for Ireland.

Dr. Geo. R. McDonagh, Toronto, is on a trip to Australia and New Zealand.

The death is announced of Dr. J. Barclay, Cowansville, P.Q., at the age of 38 years.

Dr. McKay, M. O. H., Saskatoon, will travel for one year studying health matters.

Dr. W. T. Connell, Kingston, is mentioned as Medical Officer of Health for Ottawa.

Dr. Edward Ryan, Kingston, is mentioned for Senator to succeed Hon. Mr. Sullivan, M.D.

London, Ont., lost a prominent young practitioner recently in the death of Dr. E. Pardee Bucke.

Drs. J. A. Robertson and Lorne Robertson, Stratford, Ontario, have sailed for Egypt and the Adriatic.

Dr. Chas. J. Hastings, M. O. H., Toronto, has been elected President of the Great Lakes Pure Water Association.

Dr. Horace Bascom, Uxbridge, Ontario, has been appointed Clerk for the County of Ontario. He practised in Uxbridge for twenty years.

Dr. Emerson J. Trow, late Senior Resident Physician New York Skin and Cancer Hospital, desires to announce that he will begin the practice of diseases of the skin, 21 Wellesley Street, Toronto.

The following are the officers of the Kingston Medical and Surgical Society: President, Dr. W. G. Anglin; Vice-President, Dr. R. J. Gardiner; Secretary, Dr. W. T. Connell; Treasurer, Dr. G. W. Wylks.

A teacher of physiology, chemistry, physics, biology and bacteriology is needed to work in connection with the Presbyterian Mission Hospital Medical School and Leper Asylum at Miraj, West India. A man who has a knowledge of X-ray work is preferred. Christian men who wish to investigate this opening should send full particulars regarding their qualifications to Mr. Wilbert B. Smith, 600 Lexington Avenue, New York City.

Under the patronage of Field Marshal, His Royal Highness, the Governor-General, who has graciously consented to attend the first session, the Thirteenth Annual Meeting of the Canadian Association for the Prevention of Tuberculosis was held in the Association Hall, Ottawa, Wednesday and Thursday, 12th and 13th March, 1913, beginning on Wednesday at 10 a.m.

"A well-qualified Christian male physician is required for a new hospital in South China, near Canton, where there is great opportunity for Christian medical work. Other male physicians are needed for Central India, North Korea and North Honan, China. Lady doctors are required also for Korea, India and North Honan. Three nurses are needed for hospital work in these fields. Unlimited opportunity for Christian medical practice is to be found in these fields in the Orient, where the future medical profession is largely in the hands of the medical missionaries. Apply to the Secretaries, Presbyterian Foreign Mission Board, 439 Confederation Life Building, Toronto."

The Association of Officers of the Army Medical Services of Canada met in Ottawa February 25th and 26th and passed a resolution which will be forwarded to the Minister of Militia, asking that when a Lieutenant-Colonel of the Army Medical Corps has served his full five years in command, and is thereby retired, his time on the reserve shall count towards earning the long-service medal.

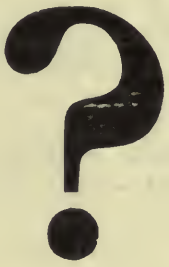
The reason of this is that an officer can go through all grades of rank in the Army Medical Corps and reach retirement in less than twenty years, thus having no chance of getting the long-service medal.

The meeting selected the following officials for the ensuing year: Honorary President, Hon. Col. Sam Hughes, Minister of Militia; Honorary Vice-President, Col. Eugene E. Fiset, D.S.O., Deputy Minister of Militia, and Col. G. C. Jones, Director-General of Medical Services; President, Lt.-Col. J. T. Fotheringham, Toronto; Vice-Presidents, Lt.-Col. R. Macdonald, Quebec; Major Geo. Campbell, Halifax, and Lt.-Col. H. R. Casgrain, Windsor; Secretary, Major T. H. Leggett, Ottawa; Assistant Secretary, Capt. Neil McLeod, Ottawa; Treasurer, Major McKelvey Bell, Ottawa; Council, Lt.-Col. H. R. Duff, Kingston; Lt.-Col. A. T. Shillington, Ottawa; Major R. L. Gardner, Ottawa; Major R. Law, Ottawa; Major G. Pelletier, Montreal, and Major Wallace Scott, Toronto.

In the afternoon meeting Nursing Sister Margaret Macdonald; Dr. D. Phelan, Kingston, Major Vaux, Lt.-Col. H. R. Casgrain and Major J. T. Clark read papers.

The annual dinner of the Association was held in the Chateau Laurier.

On the Treatment of Syphilis.—By Medical Councillor W. Wechselmann, M.D., Directing Physician of the Dermatological Section in the Rudolph Virchow Hospital, Berlin. As internal remedies, hydrarg, oxydrat, tannat. (01 gramme thrice daily in pill form), or hydrarg. iod. flav. (0.01 gramme to 0.02 gramme thrice daily in pill form), with addition of opium, is to be recommended; and more recently Mergal (hydrarg, cholate with tannin albuminate), in dose of three to six capsules daily. The last mentioned remedy appears to have no disagreeable by-effects, especially on the alimentary canal, and colic, renal irritation or debility do not occur, even when the preparation is continuously administered over a prolonged period. It might be recommended as a mildly acting antisyphilitic remedy, particularly in the slight manifestations, where vigorous treatment does not appear essential. Recent experience is much in its favor.—*Folia Therapeutica,* page 122, October, 1908.



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Publishers' Department

THE AFTER CARE OF CHILDREN'S ILLS.—With the advent of school-days, and the daily association of many children in the classroom, the contagious diseases of childhood develop and multiply. The exanthemata, as well as diphtheria, whooping-cough, etc., comprise a considerable proportion of the diseases that the family physician is called upon to treat during the late Fall and Winter months. The robust child, with but a mild infection, frequently recovers quickly, and, perhaps, requires but little attention during the convalescent period, while the child whose general nutrition is "below par" usually emerges from the acute attack with a condition of Anemia and general vital depreciation. In the large majority of cases, it is undoubtedly wise to encourage and hasten convalescence by means of a palatable and efficient hematinic and general tonic. For this purpose Pepto-Mangan (Gude) is especially valuable. All children like it and take it readily; it does not irritate the digestive organs, but, to the contrary, increases the appetite and assists in the absorption and assimilation of the child's nourishment. As it is non-astringent, it does not, as other ferruginous remedies do, cause or increase constipation. As Pepto-Mangan is prompt and efficient as a blood builder and general reconstructive, it should be preferred among children whenever medication of a general tonic nature is indicated.

THE NEW TREATMENT FOR PNEUMONIA.—After long and laborious clinical study—extending, in fact, over a period of more than twenty months—Messrs. Parke, Davis & Co. announce the addition of Pneumonia Phylacogen to their list of therapeutic agents. This product is designed for the treatment of pneumonia or any infection caused by the pneumococcus. Administered in the early stage of the disease, it is said to cut short the pneumonic process in a manner that is truly remarkable. Pneumonia Phylacogen has been administered to patients of all ages and nationalities, with highly gratifying results in a large majority of cases. "From experience gained in the study of typical cases treated under favorable circumstances," one writer remarks, "we are led to believe that almost every case of pneumonia seen within the first twenty-four hours after the initial chill will recover if properly treated with

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Phylacogen." Another observer, a professor in one of the large American medical schools, pays the product a high compliment in these words: "Pneumonia Phylacogen is the only therapeutic agent in my experience that has ever shown a definite therapeutic action on the pneumonic process." In view of the fact that pneumonia is one of the commonest and most fatal of infections (it is said upon good authority that it causes more deaths than tuberculosis, scarlet fever and smallpox combined), the new Phylacogen gives promise of a veritable therapeutic blessing.

The Automobile Knee.—Extremely indolent persons who rarely walk, and who spend many hours motoring, sometimes present peculiar conditions as regard the knee. The limbs of these people are apt to be fat and the circulation poor.. The limited use of the limbs also causes a lack of firmness in the periarticular ligaments. The joints lack resistance and become susceptible to injury from slight strains. The danger is increased by footwear that does not properly support the body weight. Knee strains are not uncommon in such individuals, and are often mistaken for rheumatism or gout. It is true that these may complicate the condition. The pure type may be classed as chronic congestive strain of ligaments of the knee joint. No increase of synovial fluid may be noted, but complaint is made of great fatigue or pain in standing. There is little or no pain unless the limb is used in weight-bearing exertion. The pain is localized on the inner side of the knee, passing from the inner condyle to the tibia and slightly in front. There is tenderness on deep pressure and sometimes quite marked sensitiveness, but no heat. Kneeling and bending the knees and walking up-stairs cause pain. Bending the knee while the patient is standing causes most pain. Careful passive motion is not painful. The affection is more common in women than men, much more so, in fact. This condition may also be observed in persons of muscular inactivity who walk but little and are able to digest well, with active appetites.—(*Boston Medical and Surgical Journal,* Dec. 5, 1912.)

Appendicitis Don'ts.—Don't give too favorable a prognosis, even if the case seems to be a mild one. Don't give any food, or even water, per os. Don't apply mustard, hot water, turpentine, or anything that will affect the condition of the skin. Don't give anything that will increase peristalsis, or any drug that will par-

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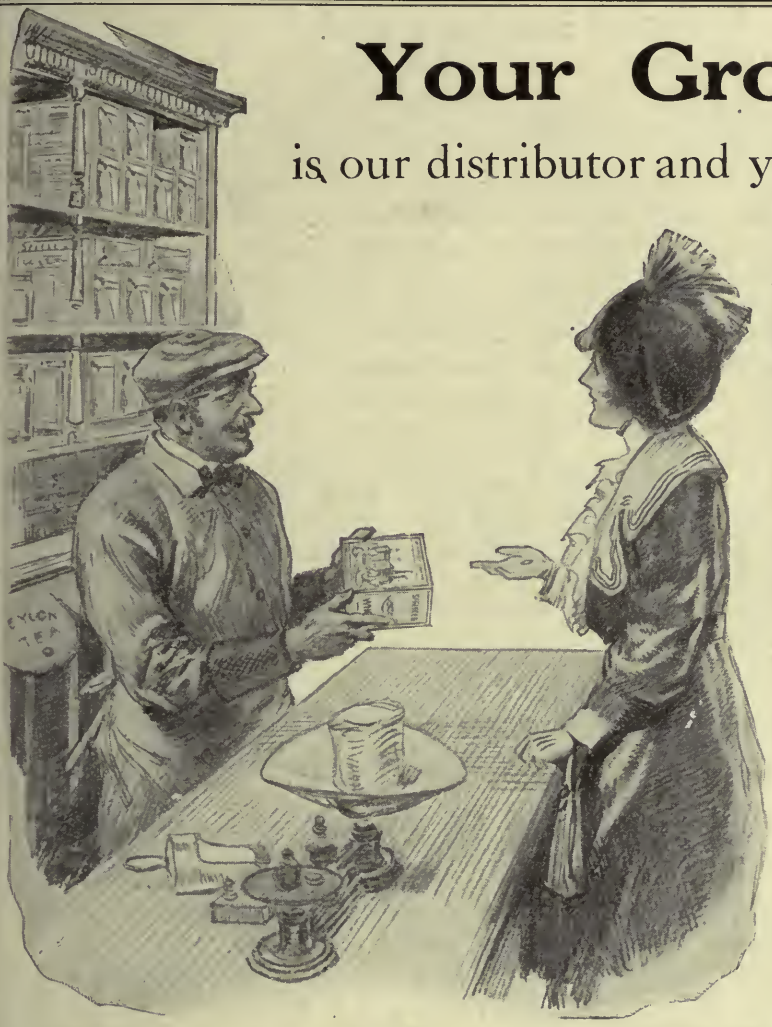

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alyze the nervous tone, prevent the passage of infectious discharges, or mask the symptoms in any way. Don't allow your patient to move about in bed, or to change position frequently. Such movements favor perforation. Don't operate hastily, but, on the other hand, don't hesitate to do so if the symptoms justify it; too much delay is as dangerous as undue haste. Don't rely on medicine if Blumberg's sign is present, but don't diagnose appendicitis if pressure over the descending colon produces no pain in the right iliac fossa. Don't rely upon Blumberg's sign alone; it is present in all cases of inflammation of the peritoneum. Don't forget that peritoneal inflammation and abscess formations are early features in children, who need operative treatment quite as often as adults. Don't forget that appendicitis may be mistaken for typhoid fever, renal colic, tubercular peritonitis, extra-uterine pregnancy, intestinal obstruction, cholecystitis, peri-nephritis abscess, cecal carcimona, hip-joint disease, hypochondriasis and hysteria. Don't rely upon medical treatment when you find: (a) There have been previous attacks. (b) The premonitory symptoms are severe. (c) The mononuclear leucocyte count exceeds 30 per cent. (d) There is sudden relief from pain. (e) The temperature keeps rising. (f) There are local signs of peritonitis. (g) There is a tumor in the right iliac fossa.—*Some Don'ts—Fellows Company, of New York.*

The Alcoholic Treatment of Burns.—Dr. E. T. C. Milligan (*Australian Medical Journal*) has adopted the following method: If the patient remains shocked and cannot stand an anesthetic, a watery saturated solution of picric acid is applied on lint, and protective, to prevent evaporation, is put over this. The next day the protective is lifted and more picric acid is poured over the lint, which is not changed, but left in position. On the third day the patient is obviously going to die, or, having responded to the treatment for shock, can stand an anesthetic. There is no justification for leaving picric acid on longer than two days where the patient can stand an anesthetic, for repeatedly burns have become very offensive when the picric dressing has not been removed till the third day. This picric acid method has not proved satisfactory, and it is used only in the absence of a better method for the shocked patient. Picric acid is absorbed, and I have seen patients presenting all the appearance of jaundice, with green urine, suggestive of toxic catarrhal conditions of the biliary passages. Staining of the white hair is a constant sign. Constitutional symptoms

IF YOU HAVE A CASE of mal-nutrition where the patient remains obstinately too thin, you will be interested in the results of the new researches on Bovril carried out at the School of Physiology, Dublin. The tests made in the physiological laboratory conclusively proved the remarkable power of Bovril in building flesh. The subjects of the tests, both animal and human, increased in weight while Bovril was administered, by from 10 to 20 times the amount of Bovril taken.

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were hard to distinguish from those caused by the burns. If the condition of the patient allows of his having an anesthetic in safety and chloroform is preferred (only because it is taken so well by the patients), then the burns are cleaned up with 70 per cent. alcohol. The exclusion of water is essential. With sterile gauze wrung out of alcohol, the whole surface of the burn, together with the surrounding skin area, is rubbed vigorously. The blisters are rubbed off, together with all dead tissue. No blister is pricked, nor is the dead skin allowed to remain to keep secretions pent up only to be infected by the organisms in the skin. Dead tissue is more effectively and easily rubbed off than taken off with scissors and forceps. The area having been thoroughly cleaned up, a dressing of sterile gauze wrung out of alcohol 70 per cent. is applied. Dry gauze and wool is applied over this. The dressings are bandaged on. This dressing is done *daily,* under chloroform. Daily dressings must be done. Every other day will not suffice, for the burns begin to become offensive and septic. The next dressing is essentially the same as the first. The parts are rubbed, not wiped, with gauze wrung out of alcohol, and dressed as before with sterile gauze wrung out of alcohol. It will be found that the dressing, when removed, sticks to the surface of the burn. By pulling the dressing roughly off, bits of dead tissue are satisfactorily removed. These *daily* dressings are continued for about eight days, when those burns short of destroying the whole skin thickness are found to be in such a clean state that boroglyceride gauze dressings or gutta-percha tissue can be applied as a dressing without any pain to the patient. It is very striking how rapidly the burns now heal under the boroglyceride gauze. If they become infected again, one clean-up with alcohol, followed by one alcohol dressing, will put them in their former aseptic state. The burns, which involve the whole thickness of the skin, take longer on account of the sloughs. These sloughs become, under this treatment, black, dry and shrivelled up, and can be torn off or dissected off with a sharp scalpel and dissecting forceps. Valuable time is lost waiting for the sloughs to separate. With the alcohol treatment nothing but the best results have followed the cutting off of the slough, for the surface is aseptic and the sloughs are not sodden, but dry; sepsis is therefore out of the question. A scalpel must be used, for it leaves with a clean-cut no microscopical track of decay and injured cells that a scissors does. It is found in the ward that often too much alcohol is absorbed. This is remedied by applying one thin layer of gauze well wrung out of alcohol over boroglyceride gauze, applied next to the burn after having rubbed the burn with alcohol.—*The Urologic and Cutaneous Review.*

Dominion Medical Monthly
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Original Articles

TREATMENT OF DIFFUSE SEPTIC PERITONITIS*

By Herbert A. Bruce, M.D., F.R.C.S.
Associate Professor of Clinical Surgery, University of Toronto; Surgeon to the Toronto General Hospital.

(Continued from April issue.)

The elevated position of the head and trunk, known as the Fowler position, has now been generally adopted, and a study of the statistics shows that it has greatly reduced the mortality of peritonitis. It considerably facilitates drainage, the fluid tending to fall into the pelvis, the serosa of which absorbs less than that of the subdiaphragmatic region, and it also facilitates respiration. The patient is usually placed in the Fowler position immediately after operation, but many surgeons now recommend that when moving patients suffering from any acute abdominal condition to the hospital they should be placed in the ambulance in a semi-sitting position, should remain in this position until the operation is performed, and of course after the operation until all danger is past.

Mr. H. J. Paterson[32] says that in his opinion the Fowler position tends to prevent subdiaphragmatic abscess, whilst Dr. Gerster[33] states that since its adoption at the Mount Sinai Hospital, in 1905, subphrenic abscess has been much more common. In my experience the Fowler position has reduced the tendency to subdiaphragmatic abscess, having only had two cases since its adoption, as against four cases in the same length of time previous to this.

Whilst Dr. Bevan[6] recognizes the advantages of the Fowler position, he points out that it is advisable not to use it in an unduly exaggerated form. His own practice is to allow the patient to lie flat in bed, whilst the head of the bed is elevated from eighteen to

*Read before the Academy of Medicine, Toronto, Jan. 7th, 1913.

twenty inches by two chairs. In order to prevent the patient from sliding down in bed, a bolster is placed below the buttocks, and fixed to the head of the bed by strips of roller bandage.

In order to facilitate the maintenance of the Fowler position, I have, during the last two or three years, been using a Gatch bed, which I have found of the greatest possible value. It not only ensures the patients' being kept in the Fowler position, but they find it so comfortable that after it has been decided that they need no longer be kept in this position they frequently ask to be allowed to remain on the Gatch bed, as they find it very much more comfortable than the prone position, and infinitely more comfortable than sitting up with a back rest and the bolster, as referred to above.

Walther, of Paris, has recommended lateral decubitus as a substitute for the Fowler position, but in my opinion without good reason.

The chief object of Murphy's method of proctolysis is the prevention of peritoneal resorption. The fluid absorbed by the rectum increases diuresis, assuages thirst, and improves the pulse and general condition. Murphy uses a solution of 7 grains each of chloride of sodium and chloride of calcium to 1,000 of water, at a temperature of about 38 degrees C., and finds that nine to ten litres, entering the rectum in twenty-four hours, can be tolerated without inconvenience to the patient. This method of treatment, together with the Fowler position, are the chief factors in the tremendous improvement in the results obtained in the treatment of diffuse peritonitis.

One of the characteristics of saline solution is its tendency to produce hyperemia, and in this connection it should be remembered that Bier teaches that hyperemia exerts a highly antibacterial influence. Noetzel has also demonstrated that intense hyperemia, with abundant secretion of leucocytes, may be produced by warm saline solution.

In cardiac collapse, the intravenous infusion of normal saline containing a few drops of adrenalin, as recommended by Heidenhain[28], may be useful, and the same may be said of subcutaneous injections of camphorated oil, ether, caffeine or strychnine.

Halpenny and Gorell[34] suggest the possibility that the beneficial effects of saline per rectum may be due to the very marked dilution of the toxins, which facilitates their neutralization, and thus increases resistance to the toxemia.

Koch[35] states that in his experience appendicostomy has been much more beneficial in the treatment of peritonitis than continu-

ous proctolysis; but the latter is so much simpler and the results so good that I very much prefer it.

If there is persistent tachycardia, digitalis in small doses, or the application of ice on the heart, may be useful. Turpentine stupes sometimes give relief in cases in which there is marked abdominal distension. Some surgeons are in the habit of giving pituitary extract after operation, and claim that it increases intra-abdominal pressure and stimulates intestinal peristalsis.

Opiates are contra-indicated, as they may increase the already existing toxemia, and prevent peristalsis and leucocytosis.

Vomiting.—If vomiting is troublesome, lavage of the stomach may be practised, but unfortunately the procedure is sometimes painful, and has to be frequently repeated. Dr. Gerster[33] states that at the Mount Sinai Hospital they perform lavage of the stomach before operation if indicated by persistent vomiting, if possible before the patient is anesthetized. Noetzel recommends it as a prophylactic measure, and continues to repeat it until the stomach has resumed its normal mobility. He is of opinion that gastric lavage, commenced at an early stage, and continued for a sufficiently long period, is the only certain means of preventing acute dilatation of the stomach, which is usually not recognized until too late, and is almost invariably fatal.

For post-operative vomiting, Westerman[36] recommends continuous siphonage by means of a tube inserted through the nose, fastened by a ribbon to the head, and emptying itself at its free extremity into a vessel placed at the side of the bed. Laxatives should not be administered until after the cessation of projectile vomiting.

CONTINUOUS CURRENT OF OXYGEN.

Weiss and Sencert[37] practise suprapubic drainage, and in order to facilitate it, pass a continuous current of gaseous oxygen through the hypogastric tube. This results in evacuation of the pelvic and peritoneal fluid, and may prevent the formation of adhesions. They have shown, both clinically and experimentally, that the current of oxygen tends to produce hyperemia of the serosa, which materially increases its bactericidal and phagocytic characteristics, arrests the development of the bacteria, and neutralizes their toxins. By this method, of which I have so far had no experience, they have recently obtained four recoveries out of five cases.

INJECTIONS OF CAMPHORATED OIL.

Efforts have also been made to increase peritoneal resistance by the injection of horse serum (Pettit) or bacillus acidi lactici (Rogers).

With the object of reducing the resorptive capacity of the peritoneal serosa, Glimm[38] has made experimental intraperitoneal injections of from two hundred to three hundred grammes of camphorated oil (one in one hundred). He claims that it is an excellent general tonic, and that it occludes temporarily the subserous lymphatics, rendering it impossible for them to absorb other products, and preventing general infection, toxemia and the formation of adhesions. Leriche[39] reports good results in four cases from the injection of camphorated oil after operation.

Hoehne[40] states that he has had satisfactory results in more than a hundred and twenty cases from the injection of camphorated oil before laparotomy, with the object of preventing the supervention of peritonitis.. From one to four days before operation he injects from twenty to thirty cc. of 1 to 10 per cent. oil, and this produces an ante-operative irritation of the peritoneum. According to him, the resulting exudation is gradually absorbed without the production of adhesions.

I cannot see why this should be used to prevent peritonitis, although, if it will prevent absorption of toxic products, there can be no objection to its use in case of diffuse septic peritonitis after the cause has been dealt with.

INTESTINAL OBSTRUCTION.

Intestinal obstruction is a very common complication of diffuse peritonitis, and in the fatal cases is the most frequent cause of death.

Intestinal obstruction occurs in two forms: (1) Paralytic ileus, and (2) mechanical obstruction.

The first form, that is paralytic form of obstruction, is usually met with soon after operation in cases in which the peritonitis has been present for some days. After operation and drainage in diffuse peritonitis there is always a possibility of the supervention of paralytic ileus, and measures should be taken to prevent it. When the bowels have moved after operation, however, there is no longer any fear of this form of obstruction. The danger, then, is from mechanical obstruction, which will occur when adhesions have formed, usually at the end of a week or ten days.

Intestinal paralysis endangers life in one of two ways: (1) By its mechanical results, which include compression of the heart in an upward direction, compression of the lungs, and interference with the circulation in the abdominal and thoracic cavities; (2) by general toxemia, due to resorption of bacteria and toxins from the intestinal contents.

When the obstruction is due to a slight or localized peritonitis it may be relieved by saline cathartics, enemata, and drugs which stimulate peristalsis. Saline cathartics may also be of value in the post-operative paralytic obstruction so often associated with diffuse peritonitis. Strychnine, atropine and physostigmine excite the intestinal fibres and stimulate peristalsis, but physostigmine is the most effectual of these drugs. Salicylate of physostigmine should be injected in doses of grs. 1/50 every two hours for three doses, and then every four hours. Other drugs which have been recommended are oil of ricini and calomel.

I have occasionally found benefit from the use of hot fomentations, with a little sprinkling of turpentine in cases of great abdominal distension. It is quite possible that the resulting hyperemia may influence the circulation in the intestinal coils, and thus favor peristalsis.

If, however, at the time of operation the coils of intestine are seen to be distended and thinned it is useless and dangerous to employ medical measures. Cecostomy or appendicostomy may be of service, but in severe and advanced cases enterostomy should be performed. In exceptionally severe cases it may be necessary to make multiple fistulæ. Volterrani has recently published eight cases, six of which were cured by enterostomy.

My results in enterostomy have not been so fortunate, and I do not think it advisable to establish intestinal fistulæ, excepting as a last resource, in view of the unpleasant nature of the complication, and the fact that fistulæ of the small intestine and cecum have a deleterious influence upon nutrition. In apparently hopeless cases, I have made multiple punctures of the intestines by means of a fine cannula, the openings afterwards being closed. In two cases at least this procedure has saved the life of the patients, and in the other cases it has at least added very considerably to their comfort.

I should like especially to emphasize the importance of careful observation in regard to the symptoms of mechanical obstruction, which, as previously mentioned, usually appear at the end of a week or ten days, and to urge immediate operation. If, at the end of a few days or a week, the patient suffers from nausea and vomiting, and if a purgative or enema is not effective, it is in my opinion very wrong to delay more than a few hours before resorting to surgical measures. If much time is wasted in this way the patient will become so weak that even though the operation is performed later and the obstruction relieved, recovery will not follow.

Since I have kept a close watch for mechanical obstruction, and have made it a rule to operate at once, I have not lost a single

case from this cause; whereas, a few years ago, several cases were lost, owing to the fact that operation was delayed in the forlorn hope of a result from purgatives and enemata. Several patients operated upon in the country, in whom this complication appeared at the end of a week or ten days, have lost their lives because the surgeon was not called again to give the necessary relief by a second operation.

BACTERIOLOGY.

There is still considerable difference of opinion as to whether the bacteriological findings have any material influence on the prognosis. Haim[41] has recently published the results of extensive investigations in this connection, and states that they indicate that the rare cases of pure streptococcic and pneumococcic infection produce severe constitutional symptoms, are frequently associated with a slightly abnormal appendix, run a particularly severe course, and have a higher mortality than other varieties of peritonitis, especially the cases associated with a pure infection by the colon bacillus. He finds that streptococci and pneumococci predominate in cases in which there is general involvement of the cavity, whilst the colon bacillus is most often associated with the encapsulated variety of peritonitis. The comparative mortality of cases of streptococcic and pneumococcic peritonitis operated upon at an early stage, as compared with that of the colon bacillus peritonitis, is 66 per cent. and 20 per cent., whilst in those operated upon after 48 hours, it is 75 per cent. and 43.7 per cent. Haim reports 27 cases of peritonitis, with 14 deaths. Streptococci were demonstrated in nine of these cases, eight of which ended fatally. When infection is due to the streptococcus or pneumococcus, death usually results from the infection alone, whilst in other cases the patients more often die from intestinal obstruction, embolism, thrombosis or pneumonia.

Dudgeon and Sargent[42] have pointed out that peritonitis due to microbic infection represents a protective reaction of the peritoneal serosa. They find that cases which recover, if examined bacteriologically, almost invariably exhibit primary infection by the staphylococcus pyogenes albus, and they therefore regard the peritoneal fluid containing this organism as being of a protective nature.

On the other hand, Mr. Rutherford Morison, at the meeting of the British Medical Association in 1911, stated that in his opinion the nature of the infective agent is of practically no significance in relation to prognosis, and Noetzel agrees with this. Noetzel states that recovery has occurred in several cases of pure streptococcic

infection which have come under observation at Rehn's clinic, and he thinks that cases of this variety are so rare that the number is not sufficiently large to allow of a satisfactory comparison with regard to prognosis. He also points out that infection by the colon bacillus may be exceedingly severe, and that many patients die from it.

Statistics.

The extraordinary variations in the results reported by different writers are apparently chiefly dependent upon the differences which have been previously referred to in the application of the term "diffuse peritonitis," and upon the fact that in some cases the severity of the symptoms does not correspond to the extent of inflammation. In not a few cases, in which the classical symptom-complex is practically absent, the whole of the peritoneal cavity is found to be involved on opening the abdomen. It is also obvious from a study of the statistics that in some districts, or in the practice of a particular surgeon, opportunities of operating at an early stage are more frequent, and this naturally tends to improve the results. This may be partially due to the circumstances of the people in the neighborhood, to financial conditions, and also to a certain extent to the fact that the general practitioners are favorably impressed in regard to the value of surgery in the treatment of diffuse peritonitis. The statistics also indicate that recovery may result after the most various methods of operation.

In 1890, Stühler, of Strasburg, reported seventy-eight cases of drainage of the peritoneum for peritonitis, with fifty cures and twenty-eight deaths. In 1892, Körte[43] reported nineteeen cases operated upon, with six recoveries and thirteen deaths (68.5%), and in 1897 he collected one hundred and thirty-three cases from literature, with fifty-one recoveries and eighty-two deaths (61.8%). From the literature appearing between 1885 and 1893 Mikulicz[44] collected thirty-five cases, with a mortality of 97%, and sixty-eight cases from that published between 1894 and 1896, the mortality being reduced to 52.4%.

The Fowler position was first recommended in 1904 by George and Russell Fowler[45], who reported one hundred cases operated upon between 1901 and 1904, with sixty-seven recoveries and thirty-three deaths (33%).

Murphy's[46] technique, which is now generally adopted, and which has given excellent results, consists in rapid removal of the cause of the peritonitis, drainage of the lower part of the pelvis, the Fowler position, rectal proctolysis, and the prevention of peristalsis by withholding food and liquids by the mouth.

The treatment recommended by Noetzel in 1905[47] closely approximates to this, but he recommends lavage of the stomach as a routine procedure, and does not withhold food and liquids by the mouth. Dépage, of Brussels[48], at the meeting of the French Congress of Surgeons, in 1911, stated that since 1906, at which time he adopted a method analogous to that of Murphy, his mortality had diminished from 40% to 9%. At the meeting of the American Surgical Association, in 1908, Dr. Murphy reported fifty cases of peritonitis, chiefly due to the appendix, with only two deaths. Most of the cases were operated upon in from twenty-two to thirty hours after the onset of symptoms.

In 1902, Rehn[49] reported ninety-three cases, with forty-two cures and fifty-one deaths (54.8%). In 1905, Noetzel reported two hundred and forty-one cases from Rehn's clinic, with one hundred and twenty-one cures and one hundred and twenty deaths (50%). In 1909 he reported four hundred and forty-nine cases, operated upon between 1891 and 1909, with a collective mortality of 38%, and stated that, during the whole of this time not a single case, however advanced, and even moribund, was refused operation. Between 1900 and 1909, the mortality in the appendicular cases has been gradually reduced from 60% to 14%. The cases reported in 1909 include, in addition to the appendicular cases, sixty-one due to pyosalpinx, with a mortality of 31%; fifteen of puerperal peritonitis, with a mortality of 53%; twenty-seven due to gastric perforation, with a mortality of 37%; nineteen to intestinal perforation, with a mortality of 74%; eleven to perforation of the gall bladder, with a mortality of 55%; four to perforation of the urinary bladder, with a mortality of 50%; three cases of pneumococcal peritonitis, with a mortality of 33%, and one case due to coprostasis, which recovered.

According to Rehn, the principles of treatment of infective purulent processes in the peritoneum are the same in both circumscribed and diffuse suppuration. His method consists in free exposure of the focus of suppuration, flushing with warm saline solution, and closure of the wound with the exception of an aperture for drainage of the deeper part of the pelvis. Noetzel is of opinion that the reduction in mortality is the more satisfactory owing to the fact that a definite prognosis cannot be made in peritonitis, and that there are so many possible causes of death, such as pneumonia, sepsis, subphrenic abscess, peritoneal phlegmon, ileus and inanition.

In 1910, Dr. Gerster reported 609 cases of peritonitis operated upon at the Mount Sinai Hospital between 1899 and 1908, 461 being due to appendicitis. His experience has shown that imme-

diate operation is almost invariably preferable to delay, but that it should be as simple as possible, and patients are, as a rule, operated upon within an hour after admission to the hospital. In the appendicular cases the mortality has been gradually reduced from 79%, in 1899, to 14%, in 1908. As only a small proportion of the cases came under observation within forty-eight hours, the results show that rational treatment of advanced cases will save a considerable proportion of them. His method is to deal with the cause of the peritonitis, to make provision for drainage, but not to flush out the peritoneal cavity. He employs Murphy's method of treatment.

The 132 cases due to other causes than appendicitis included five due to tumor perforation, with a mortality of 100%; seventeen due to intestinal perforation, with a mortality of 76.5%; sixteen due to complications of hernia, with a mortality of 87.5%; twenty-three to typhoid perforation, with a mortality of 73.9%; thirteen to perforation of gastric and duodenal ulcer, with a mortality of 46.1%; three to perforation of liver abscess, with a mortality of 66.6%; one fatal case of mesenteric thrombosis; eight due to volvulus and intussusception, with a mortality of 87.5%; twenty-four to lesions of the biliary tract, with a mortality of 66.6%; six to hemorrhagic pancreatitis, with a mortality of 83.3%; twenty to unknown causes, six being moribund, and not operated upon, mortality 70%.

In 1910, Kron collected 1,914 cases from various sources, the average mortality being 42%. On analyzing the statistics, he finds that in 1906 Kümmell reported a mortality of 90%, and in 1910 a mortality of 12%. In 1906, Sonnenburg reported a mortality of 76% in cases reported between 1896 and 1899, and in 1907 a mortality of 41% in cases reported between 1900 and 1907.

At the Congress of French Surgeons, held in Paris in 1911, Hartmann reported 56 cases, operated upon at the Bichat Hospital between 1908 and 1911, 46 being of appendicular origin. Of the appendicular cases, 15 were operated upon within the first thirty-six hours with no mortality; ten during the first forty-eight hours, with a mortality of 10%; 13 in from two to four days, with a mortality of 38.5%, and eight operated upon after the fourth day, with death in every case.

Three cases of gastric or duodenal perforation were operated upon in from six to twelve hours after the onset of symptoms, with recovery in every case. The remaining seven cases, two of which were due to intestinal perforation, three to disease of the uterus or adnexa, one to acute enteritis of the large intestine, and one to

perforation of the biliary bladder, did not come under observation for some considerable time after the onset of symptoms, and all died. The patient with perforation of the biliary bladder was not operated upon until four days after perforation had occurred.

The results in these cases confirm the assumption that early intervention is the most important factor in success, *and indicate that the fate of the patient is therefore dependent upon the early diagnosis made by the physician, and upon the prompt removal of the primary cause of the peritonitis.* Further support is given to this view by the fifty cases with only two deaths reported by Murphy, all of which were operated upon within three to forty hours after the onset of symptoms.

As regards ulcer of the stomach and duodenum, Terrier and Hartmann[50] report fifty-three cases operated upon within twelve hours with 16 deaths (30%); 38 operated upon in from twelve to twenty-four hours, with 22 deaths (58%), and 29 in from twenty-four to forty-eight hours, with 22 deaths (76%).

Siegel states that in peritonitis due to abdominal wounds involving the digestive tract, operation within the first four hours had a mortality of 15%; within five to eight hours, 44%; within nine to twelve hours, 66.6%; and after twelve hours, 70%.

A few surgeons have recently reported good results from primary suture of the wound without drainage in cases of peritonitis operated upon at an early stage.

In Professor Rotter's clinic, 151 cases of appendicular peritonitis were operated upon between January, 1910, and October, 1911. In the thirty cases in which drainage was employed there were twelve deaths (40%), whilst in the one hundred and twenty-one cases which were treated by primary suture there were only 20 deaths (16.5%). As previously stated, he now provides for drainage in exceptional cases only.

Bauer is one of the most ardent advocates of primary suture, and spoke in favor of it at the meetings of the Danischen Chirurgischen Geselleschaft in 1910 and 1911. In 1911, he reported 115 cases of appendicular peritonitis, 67 of which were treated by primary suture, with 62 cures and 5 deaths (7.5%), and 38 by drainage, with 32 cures and 6 deaths (16.5%). Of 14 cases due to perforation of gastric or duodenal ulcer, 10 were treated by primary suture, with 2 deaths (20%), 4 by drainage, with 2 deaths (50%). Ten cases were due to pyosalpinx. Of the five cases which were sutured without drainage, all recovered, whilst of the five in which drainage was employed one died. Of the remaining 15 cases (cholecystitis, typhoid perforation, perforation of gastro-intestinal

tumor), 6 were treated by primary suture, with 3 cures and 3 deaths (50%); 9 by drainage, with 4 cures and 5 deaths (54.5%). He considers that these results indicate the error of extensive and illusory drainage of the peritoneum.

Kryloff[51] reports 40 cases of typhoid perforation peritonitis, with 8 cures and 32 deaths (80%). Eight of these were operated upon within four hours after perforation, with four cures and four deaths (50%); three between four and twelve hours after perforation, with 3 deaths (100%); eight between twelve and twenty-four hours after perforation, with eight deaths (100%); five at the end of twenty-four hours after perforation, with four deaths (80%); two on the second day, with one cure and one death; one fatal case operated upon on the fourth day. In 13 cases, in which there was no definite history as to the exact time at which the perforation occurred, there were two cures and eleven deaths (84.6%).

TABLE SHOWING THE IMPORTANCE OF EARLY OPERATION.

Surgeon.	Varieties of Peritonitis.	No. of Cases.	Time since Onset.	Cures.	D'ths.	Mortality.
Hartmann..	Appendicular	15	Within 36 hours.	15	..	..
Hartmann..	Appendicular	10	Within 48 hours.	9	1	10%
Hartmann..	Appendicular	13	From 2 to 4 days	8	5	38.5%
Hartmann..	Appendicular	8	After 4th day ...	..	8	100%
Hartmann..	Perforating Gastric and Duodenal Ulcer	53	Within 12 hours.	37	16	30%
Hartmann..	Perforating Gastric and Duodenal Ulcer	38	In 12 to 24 hours	16	22	58%
Hartmann..	Perforating Gastric and Duodenal Ulcer	29	In 24 to 48 hours.	7	22	76%
Murphy	Chiefly Appendicular	50	In 3 to 40 hours.	48	2	4%
Siegel.....	Wounds involving Digestive Tract ..	..	Within 4 hours..	..	..	15%
Siegel.....	Wounds involving Digestive Tract ..	..	In 5 to 8 hours..	..	..	44%
Siegel.....	Wounds involving Digestive Tract ..	..	In 9 to 12 hours.	..	..	63.6%
Siegel.....	Wounds involving Digestive Tract ..	..	More than 12 hrs.	..	..	70%
Kryloff.....	Typhoid Perforation.	8	Within 4 hours..	4	4	50%
Kryloff.....	Typhoid Perforation.	3	4 to 12 hours....	..	3	100%
Kryloff.....	Typhoid Perforation.	8	12 to 14 hours ..	..	8	100%
Kryloff.....	Typhoid Perforation.	5	In 24 hours	1	4	80%
Kryloff.....	Typhoid Perforation.	2	In 2 days	1	1	50%
Kryloff.....	Typhoid Perforation.	1	4th day	..	1	100%
Kryloff.....	Typhoid Perforation.	13	No definite history	2	11	84.6%

Conclusions.

1. I should like to strongly emphasize the necessity for early operation in all cases of acute appendicitis. In this way the majority of the cases of diffuse peritonitis dependent upon the appendix would be avoided.

2. The necessity for early recognition of peritonitis and prompt surgical intervention.

3. The importance of a rapidly performed operation, with as little handling of the intestines as is consistent with the removal of the primary cause of the peritonitis.

4. A split rubber tube containing iodoform gauze, or a cigarette drain, should be put down to the bottom of the pelvis through a suprapubic opening, as well as a cigarette drain to the site of the primary lesion. In many cases it will be sufficient to pass a cigarette drain or split tube through the appendicular incision, with or without a small cigarette drain passed to the site of the appendix. The rubber tube should be removed at the end of forty-eight hours, and its place taken by a piece of iodoform gauze an inch wide.

5. The patient should be placed in the Fowler position as soon as a diagnosis of acute appendicitis or perforation is made, should retain this position until the operation is performed, and after operation until all danger is over, that is to say for a period of from four days to a week.

6. Proctolysis is of great value, and should always be used by the continuous drop method of Murphy.

7. Gastric lavage at the time of operation, and if vomiting is troublesome it should be repeated.

8. The administration of physostigmine, 1/50 grain every two hours for three doses, and then every four hours until the bowels move, seems to be of value.

9. In regard to morphine after operation, my rule is to allow a single dose of 1/6 to 1/4 grain if the pain is severe, which is not to be repeated. Many cases get on without any morphia at all, and from my own observation I am quite convinced that the employment of frequent doses of morphia in these cases increases the tendency to intestinal paresis and obstruction. The most troublesome cases are those in which the attending physician has ordered repeated doses of morphia. I know that many surgeons do employ morphia in repeated doses after operation, and claim that it has not only produced no ill effect, but has been beneficial, but this is contrary to my experience.

10. The morning after operation I order a 1-2-3 enema (i.e., an enema consisting of 1 oz. of glycerine, 2 oz. of magnesium sulphate, and 3 oz. of water). This enema is repeated every morning for the first five or six days, and usually no purgative is given until the end of this time, when calomel, followed by a saline or a dose of castor oil, is given. If distension is troublesome, a rectal tube is inserted, and left in for some hours.

11. If symptoms of mechanical obstruction appear, immediate operation should be performed, without wasting time in giving enemata which are ineffectual.

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50. Terrier and Hartmann: *Journ. de Chir.,* Oct., 1911. Discussion, p. 437.

51. Kryloff: "Typhoid Perforation Peritonitis." *Journ. de Chir.,* Sept., 1912, 355.

SUPPLEMENT

I should like to supplement the paper which appeared in the April and this number of this journal under the above title by a brief analysis of the cases of diffuse septic peritonitis which have come under my own observation during the last few years (1907 to 1912, inclusive). Of these cases, 282 were due to appendicitis, and the following tables show the gradual diminution in mortality during this period, and also the improvement in the results when operation is undertaken at an early stage:

Date.	No. of Cases.	Cures.	Deaths.	Mortality.
1907	33	24	9	27.2 per cent.
1908	42	32	10	22.8 per cent.
1909	40	33	7	17.5 per cent.
1910	43	37	6	14.0 per cent.
1911	59	54	7	11.1 per cent.
1912	65	59	6	9.2 per cent.
1907-1912	282	239	45	15.1 per cent.

In addition to these 282 appendicular cases, I have had eleven cases of peritonitis associated with perforation of the stomach, with six cures and five deaths, one fatal case of perforation of the ascending colon, two cases of perforation of the gall-bladder (both of which recovered), five cases of perforation of typhoid ulcer (with three recoveries and two deaths).

TABLE SHOWING THE IMPORTANCE OF EARLY OPERATION.

Variety of Peritonitis.	No. of Cases.	Time Since Onset.	Cures.	Deaths.	Mortality.
Appendicular	19	Within 12 hours ..	19	..	..
"	76	Within 24 hours ...	73	3	3.9%
"	100	Within 48 hours ...	80	11	11.0%
"	32	Within 3 days	26	6	
"	28	Within 4 days	21	7	25.0%
"	14	5 to 6 days	9	5	35.8%
"	13	A week and more...	4	9	79.0%
Perforated	4	Within 12 hours ...	4	2	50.0%
Gastric Ulcer					
"	7	Within 18 hours ...	3	3	50.0%
"	1	2 weeks	..	..	..
Perforation	1	3 days	..	..	100.0%
Ascend. Colon.					
Perforation	2	3 and 12 hours	2	..	..
Gall Bladder					
Typhoid Perforation..	5	12 to 30 hours.....	3	2	40.0%

It will be seen from the foregoing that recovery took place in one case of perforation of the stomach, in which perforation had occurred two weeks before operation was undertaken. The reasons for this were: (1) That the perforation was in the anterior wall, immediately adjoining the lesser curvature, and (2) that the stomach was empty when perforation occurred, making it possible for adhesions to form before any of the contents of the stomach reached the peritoneal cavity. These adhesions, when separated, were found to surround an abscess containing about an ounce of pus. I am mentioning this case simply to show that one may have a perforation of the stomach without septic peritonitis.

Pituitrin in Labor.—Gussew (*Zentra. für Chir.*) has used pituitrin in forty-six cases of labor. He used a solution in 1 cc. ampoules containing 0.2 c.c. of 20 per cent. extract of the posterior lobe of the hypophysis. He injected 0.75 c.c. except in three cases, when 1 c.c. was used. The smaller dose seemed to work more satisfactorily. The labor pains began some ten minutes after the injection. The author considers pituitrin a valuable and reliable agent during the act of labor and afterwards. Chloroform narcosis and the hypodermatic injection of morphine interferes with the action of the drug.

Pneumonia.—A. Netter (*Presse Medicale*) employs colloidal silver successfully in pediatric practice in all varieties of infection. He has found a fifteen per cent. ointment efficacious in lobar and broncho-pneumonia. The seat of application should be previously well rubbed with a brush. In broncho-pneumonia, injections of a relatively dilute preparation—0.25 per cent. collargol—are often administered, while in serious cases as much as one, two or even five per cent. preparations are given intravenously. Netter claims pneumonia can sometimes be arrested on the third day by this measure.

THERAPEUTIC NOTES

Scarlet Fever.—William Mackie (*The Medical Officer*) being favorably impressed with the Milne treatment of scarlet fever in private practice, made a trial of this treatment in hospital practice in 1911-12. The Milne treatment consists of the brushing of the throat every second hour for the first 24 or thereby, according to results, with 1 in 10 carbolic oil and the inunction of the surface of the body all over, hairy parts and all, with undiluted eucalyptus oil—twice daily for the first four and once daily for the next six days, making 14 inunctions in all. According to Dr. Milne, the patient is then in a condition to be discharged without danger to himself or anyone he may come in contact with. Dr. Mackie supplemented this treatment in the hospital by giving the patient a daily bath when the grade of temperature permitted, and by continuing the daily inunction with eucalyptus oil up to the very day of discharge. The very best eucalyptus oil was used. Dr. Mackie states 44 cases of scarlet fever were admitted to the Fever Hospital, Royal Burgh of Elgin, during the year. Of these 22 were treated on the ordinary lines and 22 according to the lines laid down by Milne. As two of the latter remained undischarged, only twenty were reported on. Of those treated on the ordinary lines, the average length of residence in hospital was 43.4 days; of the latter, by the Milne treatment, 29.5 days, or a saving of 13.9 days per case in the latter series. Dr. Milne's treatment is fully set out in his book, "A Plea for the Home Treatment and Prevention of Scarlet Fever."

Cerebro-Spinal Meningitis.—Phebe L. Dubois (*J. A. M. A.*) says the treatment of cerebro-spinal meningitis may be divided into prophylactic, specific and general. Prophylaxis consists in quarantining cases and looking for carriers. The specific treatment consists in the intraspinal injection of antimeningitis serum. If a cloudy fluid is found on lumbar puncture, the serum should always be injected. The sooner the serum is injected the better, and it does no harm even if some other organism is the cause of the trouble. The serum is warmed and allowed to run in slowly by gravity. The amount administered depends on the amount withdrawn—usually a little less in amount up to 40 c.c. than the cerebro-spinal fluid withdrawn—using change in the blood pressure as a guide to the dose. In ordinarily severe cases, a lumbar punc-

ture is done, the fluid drawn off and serum injected every day for four days. For general treatment—urotropin, as formaldehyde after its administration appears in the cerebro-spinal fluid—when the patient is restless or in pain in order to procure enough sleep. The diet should not be too limited. Conjunctivitis is best treated with argyrol. The bladder must be watched for retention. Before the use of the serum the mortality averaged 75 per cent.; since using the serum, 50 per cent.

Abdominal Ptosis.—H. H. Oldenborg (*J. A. M. A.*) states that while most writers have recommended gymnastic exercises, few have given directions as to how they should be performed. In these cases the abdominal walls are relaxed, there is more or less pronounced lumbar lordosis, round shoulders, flat-chestedness and acute epigastric angle. To correct these conditions, it is necessary to strengthen the upper spine, develop the chest, and so increase the lung capacity, strengthen the abdominal walls, and overcome the lordosis. With children much can be done with good hygiene, plenty of outdoor air and regulated gymnastics.

Fetal Membrane in Skin Grafting.—Nicholas Sabella (*The Medical Record*) says the materials or organs generally thrown away after the child is delivered can be utilized to the best advantage in skin grafting. He enumerates seven principal methods of skin grafting: (1) Thiersch's, (2) Reverdine's, (3) Wolf's, (4) Pedicle flap intact, (5) Pedicle flap not intact, (6) Cuticle scrapings used while fresh, (7) Old scrapings preserved in a bottle with normal saline solution and used when needed. The disadvantage of all these methods is that of taking the grafts from the patient himself or from a volunteer. All this can be avoided by the use of the amnion and the umbilical cord. By keeping them immersed in normal saline solution and changing the solution a few times before the use of the organs, they will keep alive for over seventy-two hours. When the patient is ready for grafting the organs are dipped several times in a new solution of normal saline and then they are cut up into pieces in any shape and size desired. The cord should be cut open and the blood-vessels scraped out. The surface of the cord and amnion which is to be placed on the ulcer should be the continuation of the inner surface of the cord. Dr. Sabella claims he has tried this method on several patients and gained great success with it. It is especially adapted for those cases in

which the areas to be grafted are so large that enough grafts cannot be obtained from the patient himself.

Infantile Convulsions.—Weiss, Boice, Lake, Bell (*N. Y. M. J.*) discuss in a symposium the treatment of infantile convulsions. Weiss gives a tepid bath with cold affusions to the head if there is fever; or hot mustard bath if no fever. Following this he gives chloral hydrate, alone or with the bromides, by the rectum. During teething small doses of alcohol. Chloroform or amyl nitrate inhalations may be tried. Following an attack, the bowels should be cleared with calomel or castor oil. Boice thinks first of chloroform inhalations, using them just to the point of stopping the convulsions. Then he empties the bowels with high colon injections. To prevent recurrence, he then throws into the bowel a mixture of chloral hydrate and sodium bromide. He also uses the mustard pack, prepared by mixing a tablespoonful of mustard in a quart of tepid water; a towel moistened with this is wrapped around the child's body, and kept there until it is a well-defined red. If the convulsions still continue, morphine is administered hypodermically. Lake empties the stomach and bowels, the former by mustard, ipecac or warm water by mouth or apomorphine hypodermically, or with the stomach tube. The lower bowel may be cleaned out with warm soap-suds enema. Then he immerses the child in hot bath and gives a few whiffs of ether or chloroform. Bell gives the following treatment: Ten minutes in a mustard bath at 100° F., with mild friction; no bath when there is loss of blood, anemia, diarrhea with inanition or cardiac disease. Next he gives the soap-suds enema, and if it seems likely there is food or poison in the stomach, an emetic, usually ipecac, is given at once. If these measures are not effective, then an enema containing chloral hydrate and sodium bromide is given; if this fails, morphine hypodermically.

Hydrocele in Infants.—J. H. Nicoll (*B. M. J.*) operates as follows: An incision, one to one and a half inches long, is made in the skin just above the groin over the inguinal canal, and the cord exposed just below the ring. The testicle and hydrocele are pushed up into the wound, and the upper end of the hydrocele sac is exposed by a few snips of the scissors. The exposed sac is then emptied by trocar and cannula. The collapsed sac, with the testicle, are then pulled out of the wound, and the sac is dealt with

either by tearing out its internal serous lining, by complete incision, or by bisection and suture of its halves back to back behind the testicle. Replacement of the testicle in the scrotum and suture of the wound in the groin complete the operation.

Intestinal Putrefaction.—In the *Journal American Medical Association*, a writer on disturbances of the heart discusses disturbances due to the absorption of irritants from the intestines, alcohol, tobacco, and caffein. The heart may be made slow, rapid or irregular. Removal of meat from the diet is most successful in the management of intestinal putrefaction. One of the best laxatives to use is agar-agar. As to bowel antiseptics, none is more efficient than salol, 5 grains three or four times a day. Washing out the colon with high injections is often of value. Lactic acid bacilli, best the Bulgarian, are often of value in intestinal fermentation. A tablet may be eaten with a little milk-sugar, or with a small lump of cane sugar, after each meal. One-sixth of an ordinary compressed yeast cake, dissolved in a glass of water, may be taken once or twice a day. Foods which cause fermentation should be eliminated.

Asthma.—Stadler (*Med. Klinik, Berlin*) remarks that as the patient is generally seen first in an attack, he needs prompt and effectual help. For this, reliance may be had on epinephrin, a subcutaneous injection of 0.5 c.c. of 1 per thousand solution, in the upper arm. This gives remarkable relief in from three to five minutes. The by-effects, palpitation, etc., pass off in a few moments, and the patient soon sleeps. In his experience he has never known it to fail.

Hemorrhage.—Charles G. Levison (*J. A. M. A.*) says for a number of years it has been an accepted procedure to employ horse serum hypodermatically in hemorrhage due to diminished tendency of the blood to coagulate, and experience has proved this remedy very effective. It has been employed in varying quantities, and the results have been excellent in hemophilia, purpura, melena neonatorum, and in operations associated with a long-continued icterus. Levison reports a case of cystotomy where a cystic tumor was removed, the area cauterized, but the bleeding persisted for seven days. Tincture of iron, alum, epinephrin and antipyrin were used locally, as well as packing and the injection of horse-

serum. Horse-serum was then applied locally. A flask of this was poured into the bladder, and the hemorrhage ceased almost at once, and there was no further bleeding. In a case of gall-bladder hemorrhage after cholecystenterostomy, the results were immediate after a flask of horse-serum had been poured in and the gall-bladder packed. The bleeding did not occur.

Acute Coryza.—Volland (*Merck's Report*) recommends 10 to 15 drops of a one per cent. solution of morphine hydrochloride, in acute coryza, especially if the nasal breathing be interfered with. He claims it will relieve in a day. Dionin is equally effective, according to a note in *Phar. Zeitung.* A dionin tablet taken at 5 o'clock in the afternoon and another before going to sleep at night has entirely relieved a "cold" in the course of 24 hours.

Eczema.—M. Bockhart (*Merck's Report*) particularly recommends alcohol for acute and chronic seborrhœic and non-seborrhœic, but not in weeping and ulcerating eczema. It is harmless and a very good antiparasitic. He advises to sponge carefully the diseased surface and the adjoining skin twice a day by means of a plug of cotton wool soaked in alcohol (90 per cent.). This is to be done immediately before the application of the drugs used in the treatment of the eczematous tissue (powder, dry painting, ointments, tar, etc.). It relieves the itching and wards off post-eczematous furunculosis and pyodermatitis. It should be continued some time after the eczema is cured.

Pneumonia.—P. B. Aquino (*Semana Medica,* Buenos Aires) emphasizes the efficacy of local applications of the salicylates in pneumonia. He uses a mixture of 10 gm. of salicylic acid in 90 per cent. alcohol, with 10 gm. of castor oil. The skin is washed with ether, and one to two spoonfuls of the solution applied on gauze. This is covered with cotton and rubber tissue, held in place by a bandage. The dressing should be renewed about every six hours. The treatment is supplemented with heart tonics, enemas and an alkali internally, as the salicylic acid is eliminated through the kidneys, and is irritating to them. Defervescence never failed on the third day. Camphorated oil as a heart tonic was injected each day—0.01 or 0.02 gm.

Reviews

Solidified Carbon-Dioxide. By Ralph Bernstein, M.D., Philadelphia. Hammond, Ind.: Frank S. Betz Co.

This book, which is fully and well illustrated, gives a clear and comprehensive exposition of the use of the remedial agent, solidified carbon-dioxide, in the treatment of cutaneous neoplasms. It sets forth in a practical way the author's results, and his clinical experience. He has found this agent an admirable one in various cutaneous manifestations. These results are strikingly portrayed in the many excellent illustrations.

Medical Laboratory Methods and Tests. By Herbert French, M.A., M.D. (Oxon.), F.R.C.P. (Lond.); Assistant Physician, Guy's Hospital, etc Third edition. Toronto: The Macmillan Company of Canada, Limited.

With the third edition of this practical handbook, new methods and tests have been introduced and old ones modified. The subject matter is clear and concise and confined to chemical and microscopical methods which have become established in clinical medicine. Students and general practitioners will find this small book of great value.

The Development of the Human Body. A manual of human embryology. By J. Playfair McMurrich, A.M., Ph.D., LL.D.; Professor of Anatomy in the University of Toronto; formerly Professor of Anatomy in the University of Michigan. Fourth edition. Revised and enlarged. With two hundred and eighty-five illustrations, several of which are printed in colors. Price $2.50 net. Philadelphia: P. Blakiston's Son & Co.

One sees in this new edition several chapters almost entirely rewritten to come up to the additions to the knowledge of human and mammalian embryology within the last few years. Practitioners and students can be assured the work has been well done, and that the book presents accurate statements of present-day knowledge of the development of the human body. It can be highly recommended as a first-class book upon the subject.

The Bradshaw Lecture on the Biology of Tumors. By C. Mansell Moullin, M.A., M.D. (Oxon.), F.R.C.S. London: H. K. Lewis.

This is a lecture delivered at the Royal College of Surgeons of England on Thursday, December 5th, 1912, and has been published in book form by the request of the Council of the Royal College of Surgeons The price is two shillings net. It can be taken for granted that a lecture by this distinguished surgeon would deal with the subject in an authoritative manner.

E. Merck's Annual Report of Recent Advances in Pharmaceutical Chemistry and Therapeutics. Vol. XXV. Darmstadt: E. Merck Chemical Works.

The annual report of the celebrated house of E. Merck, Darmstadt, Germany, has now become a welcome classic to the physician and pharmacist. With it one can quickly scan the field of modern pharmacotherapy. It is presented free of charge to scientific institutions, libraries, clinics, physicians, pharmacists, wholesale druggists, etc. Copies can be ordered through booksellers, or by addressing the house direct. The German edition of this year's report contains a General Index of the whole series of twenty-five annual reports.

Pye's Surgical Handicraft. A manual of surgical manipulations, minor surgery, and other matters connected with the work of house surgeons and surgical dressers. Edited and largely rewritten by W. H. Clayton Greene, B.A., M.B., B.C. (Cantab.), F.R.C.S. (Eng.); Surgeon to St. Mary's Hospital; Lecturer on Surgery in the Medical School, etc. Sixth edition; fully revised, with some additional matter and illustrations. Publishers: The Macmillan Co. of Canada, Ltd., Toronto. 1912.

When one contemplates the world-wide diffusion this splendid classic has enjoyed since its first publication, in 1884, its power for good must be considered as well-nigh without bounds. House surgeons and dressers—aye, and countless blossoming surgeons—have advanced to the dignity of skilful craftsmen in the applied art of surgery, and, to no small degree—through the knowledge acquired from the study of this work—have been able to render surgical

service to humanity throughout the habitable globe, of incalculable value.

The editor of the present edition has added an immense amount of most valuable material, bringing it quite up to date. One might mention especially the chapters on X-rays and of the taking and interpretation of skiagrams, and those dealing with modern genito-urinary surgery, syphilis, etc.

The work is beautifully illustrated, and the publishers have turned out a book that reflects on them the greatest credit.

Diseases of the Ear. By RICHARD LAKE, F.R.C.S.; Surgeon, Diseases of the Ear, etc., London School of Clinical Medicine. 287 pages, four colored plates and 77 original illustrations. Fourth edition, revised and enlarged. Price, $2.50. Toronto: D. T. McAinsh & Co.

The medical student and general practitioner require no better book than this on Diseases of the Ear. There are four beautiful plates, as follows: (1) Acute conditions; (2) Chronic non-suppurative conditions; (3) Chronic suppurative conditions; (4) Tympanic membranes—pathological conditions. The illustrations are new and especially suitable; the text complete, practical, modern, the technique of examinations and operations being concise and clear. The treatment is succinctly set out. There is an appendix of considerable therapeutic value.

Vaccine Therapy. Its Theory and Practice. By R. W. ALLEN, M.D., B.S. (Lond.), late Clinical Pathologist to the Mount Vernon Hospital for Disease of the Chest; late Pathologist to the Royal Eye Hospital; late Gull Student of Pathology, Guy's Hospital. Fourth edition. Price, $3.00 net. Philadelphia: P. Blakiston's Son & Co.

Two and one-half years have expired since the third edition of this, the best book on the subject of vaccine therapy, appeared in 1910. During these two and one-half years, there have been considerable developments and extensions made, which have called for this fourth edition. The book has been enlarged and completely rewritten. It is essential to progressive medicine, especially to those interested in this form of treatment.

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COMMENT FROM MONTH TO MONTH

A few cold-blooded facts concerning Dr. Friedmann and his "Cure" should prove interesting reading at the present time.

1. Dr. Friedmann came to New York with the idea of immediately beginning to practise his "profession."

2. The New York State Medical Association refused him permission—as would have been done in any province in the Dominion of Canada.

3. The Washington authorities suppressed his activities under an Act of Congress controlling "The Manufacture, Sale and Importation of Sera, Vaccines and Other Viruses, for Use in the Treatment of Human Beings."

4. But they very liberally allowed him to try out his alleged "cure" on cases in New York hospitals, provided: (a) That he hand over his cultures so that they could be proven at least harmless to humans; and (b) that the cases treated should be under personal government supervision.

5. And this is being most carefully and dispassionately done by Drs. Anderson and Stimson of the Washington Bureau of Health.

6. To date no single authentic case, as observed by impartial eyes, has shown any but evanescent improvement.

7. In practically all cases, unless the "culture" had been given intravenously, *nothing* has happened.

8. Animal experiments on monkeys, rabbits and guinea pigs have likewise been *negative.*

9. The organism is not like the tubercle bacillus as we know it only in being acid-fast. It grows on anything rapidly.

10. It does not produce anything like tubercles in any known warm-blooded animal.

11. Tens of thousands of sufferers from tuberculosis are eagerly waiting the "cure."

One person is dying of tuberculosis every three or four minutes.

12. Yet Dr. Friedmann, who avers that he alone possesses the wonderful secret of the method of using his remedy, complacently assumes this responsibility, refusing to touch the spring that will open "the innermost workings of his mind" in this connection.

13. Whilst we in Canada fall on his neck and scientifically embrace him as the one and only tuberculosis emancipator.

And yet, in spite of all, it is only fair that we should keep our minds open and wait for the report of the United States authorities. It is certain to be absolutely fair. Let us be guided only by this and not by press statements emanating from Dr. Friedmann or his associates, not that he and those around him may not be honestly in earnest, but then the medical profession is sadly too familiar with the thing known as "honest over-enthusiasm."

Let us wait patiently the truth, always hoping that Dr. Friedmann's claims may be proven.

The Marriage Laws in Ontario are under reconstruction at the hands of the Ontario Legislature. This is the thin end of the wedge of eugenics in this province.

The clear eugenical rule is: "Let abnormals marry normals without trace of defect, and let their normal offspring marry in turn into strong strains; thus the defect may never occur again. Normals from the defective strain may marry normals of normal ancestry; but most particularly avoid consanguineous marriages."

There is another side to the subject, however, and that is the sociological. Here the feeble-minded, drunkards, paupers, sex-offenders, and criminalistic should be prevented from marrying their like or cousins of any person belonging to a neuropathic strain. Segregation of such persons during the reproductive period for one generation would show good results for future generations. In this way the crop could be materially reduced.

The subject is so important economically and sociologically that the essential features of any marriage law should be medical certificates for both contracting parties, and the issuance of the licence by a qualified medical practitioner.

The Fly Pest can be most efficiently abated by commencing early and working early, late and all the time. It is too late in any season to begin when flies are buzzing about in plenty.

If search is made early, all garbage and refuse disinfected thoroughly and removed, and animal manure properly disposed of once a week in winter-time, the best steps will be taken. Chloride of lime should be used plentifully in garbage and refuse, in stable and manure.

In the early spring, when each fly is creeping lazily out from its winter rendezvous, its immediate destruction will prevent subsequent myriads. All winter long the search should be prosecuted, and it is during winter and spring that the most effective work can be done.

Physicians can do much by continually reminding households to be ever vigilant.

Chloride of lime should be a household article, ever ready to be sprinkled upon each addition to the covered garbage can.

Self-drugging is increasing in many parts of the world. It is as apparent in Canada as in other countries. The advance in education, the decadence of polypharmacy, and the multiplication of proprietaries may have much to do with it.

Prescription writing of a single ingredient or of a proprietary appeals to the intelligence of the average individual, and many people come to know what protargol, antifebrin, phenacetin, chloral hydrate, calomel, aspirin are for and how to use and even recommend them.

To what an enormous extent self-drugging has grown in the United States can be seen from a perusal of Bulletin No. 56, U. S. Public Health Service. In the past ten years that country has imported 400,000 lbs. of opium, fully 75 per cent. of which is manufactured into morphine. Of this, 80 per cent. is used by victims of the drug habit. Then it is estimated that 150,000 ounces of cocaine are used illegitimately in the same country annually. Add to these figures the hundreds of pounds, yes, tons of chloral and other hypnotics, as well as the coal tar derivatives, and one must stand aghast at the awful toll of human wrecks, equalling if not surpassing the wrecks from the abuse of alcoholic beverages. Surely a vast field is this for temperance workers!

It would be a difficult matter to suggest a remedy, but the medical profession could protect its skirts to some extent by doing all its own prescribing. The manufacturing pharmacists have made this an easier work than in former years, when pills, powders, mixtures had to be compounded by the hard-worked practitioner.

Editorial Notes

SCHOOL HYGIENE

The Fourth International Congress on School Hygiene will be held in Buffalo August 25th-30th inclusive, under the patronage of the Honorable Woodrow Wilson. His Royal Highness the Duke of Connaught has accepted an invitation to attend.

It is desired to bring together a record number of men and women interested in improving the health and efficiency of school children; moreover to make this Congress—the first of its kind ever held in America—one of direct benefit to each individual community.

There is now being arranged a comprehensive programme of papers and discussions covering the entire field of school hygiene. There will be scientific exhibits, representing the best that is being done in school hygiene, as well as commercial exhibits of practical and educational value to school people. Nor will the entertainment of the delegates in any way be a minor feature. Plans are being made for a series of social events, including receptions and a grand ball, a pageant in the park, and excursion trips to the great industrial plants of Buffalo, as well as to the wonders of Niagara Falls and the Rapids. Buffalo itself has just taken up a collection of $40,000 for the purpose of covering the expense of the Congress.

Delegates will attend from all the leading nations, from every college and university of note in America, and from various other educational, scientific, medical and hygienic institutions and organizations. The Congress is further open to all persons interested in school hygiene. Membership may be secured on the payment of a five dollar fee. Applications should be sent to Dr. Thomas A. Storey, College of the City of New York, New York City.

It is greatly desired to secure large membership of the Congress.

The man of to-morrow depends upon the child of to-day, and the child of to-day, roughly speaking, spends half his waking hours under the influence of school conditions.

Among the delegates to this Congress from Canada are: Prof J. George Adami, Dr. Grace Ritchie England, Montreal; Dr. F. Montizambert and Dr. Charles A. Hodgetts, Ottawa, who is chairman of the Ontario Committee. Sir James Grant, Ottawa, is an honorary vice-president.

CRILE'S REVOLUTIONARY THEORIES REGARDING SHOCK

In the *Boston Medical and Surgical Journal* recently there was an exceedingly thoughtful article by Risley regarding recent theories concerning shock. The writer has been specially interested in the exposition of Crile's theory regarding shock and "anoci-association," which Risley has set forth in a most lucid manner.

The essential beauty of Crile's theory is that it has pragmatic value—it is a working theory, which we can use, and apparently with benefit. As Risley points out, while the essential factors in shock are trauma, the anesthetic, a primary rise with a following fall in blood-pressure, decrease in body-temperature and vasomotor inhibition, paralysis and then exhaustion, the great contribution of Crile seems to be in showing that in the presence of shock *there are important changes in the cells of the brain.* These changes may result from such noxious influences as trauma, fear and infection. Bear in mind the deadly influence of fear.

These changes in the brain-cells are radical, influencing the size of the cell itself, involving the cell-plasma, cell-membrane and nucleus. In severe shock the cell may even be reduced to a disorganized mass of protoplasm, showing, that, under the terrific morbific nerve-influence the cell may literally become "busted"—to quote Risley's own words.

Crile then goes on to show that these degenerative cell changes are the same, whatever the cause, whether acting over a short period or resulting from disease. But his most interesting observation, perhaps, is that ether, while rendering the patient unconscious, does *not* prevent that deeper somatic agony which ends in brain injury. It is but "a veneer that covers the deeper suffering of the patient (or patient's brain cells)." Ether, therefore, is one of the determining causes of shock. For instance, he proved experimentally that under ether four times as much injury is done to the cells as under nitrous oxide.

These facts furnish the foundation for Crile's methods for the treatment and prevention of shock. This depends upon the ability to block off the brain from the noxious influence, this being accomplished by the conjoint use of local anesthetics and the preliminary use of morphine.

But let us consider first the treatment of shock itself. Crile believes that intravenous infusion is of prime importance because it causes, in the first place, an increase in the venous pressure in the vena cava and consequently the output of the heart is at once increased, the amplitude of the strokes lengthened, the chambers

being full, the contractions become more forcible and blood-pressure begins to rise. The combination of small, frequently repeated hypodermic injections of strychnia, together with saline infusion, produces a more constant pressure than ether alone. Over-stimulation is followed by greater depression, hence large doses of strychnia are absolutely contraindicated, for such doses produce vasomotor paralysis and shock the same as trauma does. It is as reasonable to treat shock with large doses of strychnia as to treat strychnine poisoning with trauma. No justification can be found, experimentally, for the use of alcohol, nitroglycerine or amyl-nitrite as stimulants. As regards alcohol, in not a single instance was there a sustained improvement in the blood-pressure or respiration. On the contrary, the most constant and marked effect on the blood-pressure was a decline. The final breakdown was more sudden with drugs than in control animals. Adrenalin, however, administered cautiously and continuously, with a limited amount of saline, proved the best stimulant, in addition to external pressure by Crile's rubber suit or bandaging of extremities.

The great advance made by Crile in the treatment of shock has been in elaborating a logical *prophylaxis*. This we are in a position to study and to see clearly his reasons for.

It is an unpleasant thought that although our patient is unconscious from general anesthesia, yet the nerve impulses inaugurated by operative injury of the nerves reach the brain and produce harmful changes there which are the precursors of shock. It is clear that if general anesthesia cannot prevent the damage done to the brain in the course of operation some means must be devised to prevent this damage. It is known that cocaine, in addition to its ability to block sensory impulses, also blocks impulses that cause the response of the entire nervous system, under general anesthesia. If we combine, therefore, a local with a general anesthetic and avoid fear previous to operation, by the use of sufficiently large doses of morphine to bring the patient to the operation in a quiet, contented frame of mind, it matters not how poor the risk or how extensive the operation, the nervous system is protected and the immediate operative risk is eliminated.

The elimination of the factor of fear is an extremely important one and can be entirely accomplished only by the most careful co-operation on the part of the nursing and operating staff. The patient should be told of all the preparations to safeguard his welfare before, during and after operation; his room should be quiet and free from outside disturbances.

Fear is stronger than will, but under morphine a mental state is produced in which one is neither brave nor a coward, because this drug destroys the associational power of the brain, and the patient is let in a quiet state of mental and physical repose.

If we can, therefore, prevent fear and obtain an innocuous substitute for ether, and block harmful nerve impulses from the brain, we have a condition best described by the word *anoci-association,* that is one in which the patient is both mentally and physically protected from nocuous impulses or influences.

(The difference between anoci-association and anesthesia is as follows: Although inhalation anesthesia confers the beneficent loss of consciousness and protects from pain, it does not prevent the nerve impulses from reaching and fatiguing the brain cells, and hence does not prevent shock or the train of later nervous impairments so common following shock, i.e., neurasthenic post-operative states.)

The *prophylaxis,* therefore, which is to produce a state of *anoci-association* consists first in gaining the confidence of the patient, reassurance of a favorable outcome, the generous enough use of morphia before operation to produce a state of mental relaxation and content, nitrous oxide and oxygen anesthesia, nerve-blocking by cocaine or novocaine, great care to prevent loss of body heat, injury to tissues handled, and trauma to any but the immediate site of operation, speed reasonable to safety and a similar anocuous after-care. Crile, in abdominal operations, uses the quinine and urea hydrochlorate injected into the peritoneal edge before sewing up. The anesthesia produced locally by this drug lasts for 24 to 48 hours, and protects the patient almost entirely from the wound pain, as it is the pulling of peritoneum, which is the greatest factor in the causation of the post-operative wound pain.—*Med. Standard.*

DEATH BY ELECTRIC CURRENTS

The greatly extended use of electricity in the service of man during the past thirty years or so has not been wholly without its dangers to human life. A considerable amount of knowledge has been amassed during this period as to the precise manner in which electric currents prove fatal, and this has been ably set forth by Dr. A. J. Jex-Blake in the first two of the Goulstonian Lectures recently delivered by him before the Royal College of Physicians of London. Post-mortem evidence as to the cause of death by electric currents in industrial accidents has usually been negative,

at one time suggesting asphyxia, and at others organic vascular or nervous lesions of the brain and spinal cord. The results of experiments upon animals show that dogs are most sensitive to the passage of the current, and that death may be due to asphyxia from prolonged muscular tetanus, to primary cardiac failure of the respiratory system, or to the two latter combined. Grave nervous symptoms may also manifest themselves in animals exposed to currents of high voltage. In human beings the element of shock plays an important part, though actual death generally takes place from primary heart failure, due to fibrillation, from failure of the respiratory system, or to gross nervous lesions following at a later period. It is pointed out that the degree of danger depends on many other factors than mere voltage of current. Alternating currents are, *caetibus paribus,* more dangerous than continuous. Practically, wetness of the skin of the hands or feet is a factor of very great importance, for when the extremities are dry, conductors carrying currents of 500 volts may be touched with impunity. Artificial respiration still remains the best mode of treatment in cases of apparent death from electric currents, and this should be persisted in until it is *certain* that death has occurred.—*Medical Press and Circular.*

THE FRIEDMANN TREATMENT FOR TUBERCULOSIS: ITS INVESTIGATION BY THE UNITED STATES PUBLIC HEALTH SERVICE

On March 8 the Secretary of the Treasury, on the recommendation of the Surgeon-General of the Public Health Service, caused a board of medical officers to be detailed to make a thorough investigation of Dr. Friedmann's alleged cure for tuberculosis.

These officers proceeded immediately to New York and arranged with Dr. Friedmann for demonstrations of his remedy upon persons suffering from tuberculosis. These demonstrations are being carried on in certain New York hospitals through the courtesy of their respective authorities, and will be continued until sufficient information has been obtained for the forming of an opinion as to the merits of the treatment.

Dr. Friedmann has submitted to the Board a culture of the bacteria which he states are used in his method of treatment. In addition to the observation of persons under treatment by Dr. Friedmann, the Board of Officers will make experiments to ascertain whether this culture is, as Dr. Friedmann claims, harmless to warm-blooded animals.

Considerable time will necessarily be required to carry out these investigations. The work will be carried on as rapidly as possible. In the meantime the public is informed of the inadvisability of tuberculous patients travelling long distances in the hope of receiving treatment. Those to whom it is administered for demonstration purposes are selected by the hospital authorities from among their patients; the number selected constituting only a small proportion of available volunteers.

Certain statements purporting to be expressions of the opinion of the Board of Officers of the Public Health Service carrying on the investigation have appeared in the newspapers. These officers have expressed no opinion, and will not be in a position to do so until the work has advanced sufficiently far to warrant some conclusion in regard to Dr. Friedmann's treatment.—*Public Health Reports,* March 21, 1913.

THE GLASGOW LISTER WARD AND MUSEUM

As a memorial to the late Lord Lister, and as a means of perpetuating his memory in a way that it is hoped will prove both interesting and instructive to every member of the medical profession for all time to come, one of the wards in the Royal Infirmary, Glasgow, in which he worked out and first put into practice the principles of Antiseptic Surgery, is to be reserved and utilized in the following way. One part of the ward is to be refurnished as it was in his time with such objects as it may be possible to acquire; while the other part is to be made into a museum for the exhibition of anything associated with the life and work of the great master.

It is, therefore, asked that any who may have letters, pamphlets, books, or other objects of direct personal association with Lister and his work will either present or loan them to the museum.

Professor John H. Teacher, M.D., Hon. Curator of the museum, will be pleased to receive any objects addressed to him at the Royal Infirmary, Glasgow, Scotland.

The names of all donors or senders of objects are to be affixed to the exhibits.

News Items

Dr. Charles V. Vipond, Montreal, has returned from Florida.

Dr. H. A. Bruce, Toronto, has returned from Atlantic City.

Dr. S. M. Hay, Toronto, will spend several months abroad.

Dr. W. W. Ogden, Toronto, has gone on a trip to the Mediterranean.

Dr. J. George Adami has become connected with the editorial staff of the *Buffalo Medical Journal.*

Dr. Walter Bapty, Victoria, B.C., has been appointed inspector of hospitals for British Columbia.

The new Hospital for the Insane, Brandon, Man., was formally opened on February 8th.

The Federal Government at Ottawa will not, for some time to come, create any new cabinet position such as Minister of Public Health.

The Vancouver General Hospital treated 5,500 patients during the last hospital year. The daily cost per patient per day was $1.93.

The Montreal General Hospital now makes compulsory the retirement of attending physicians upon reaching the age of sixty-two years.

The Government of Alberta will bonus two doctors to the extent of $4,000 to take up medical work in the outlying districts of Northern Alberta.

The Jordan Memorial Sanatorium for Consumptives at River Glade, N.B., will be ready for occupation the coming summer. The outlay on this institution will be about $150,000.

The *Western Medical Press,* Regina, commences on its fifth year.

The Saskatchewan Medical Register has nearly 600 licentiates enrolled.

Halifax is moving towards the establishment of a Tuberculosis Hospital.

Infant mortality for Manitoba in 1911 was 128 to the thousand, while in 1910 it was 145.

The Canadian Medical Association meets in London, Ontario, on the 24th, 25th, 26th and 27th of June, 1913.

Dr. Albert Lesage has been appointed Professor of Pathology at Laval University in succession to the late Dr. Hervieux.

Professor F. F. Westbrook, dean of the Faculty of Medicine of the University of Minnesota, is to become President of the new British Columbia University.

M. J. Haffey, M.B., M.R.C.S. (Eng.), L.R.C.P. (Lond.), late of London and Vienna Hospitals, desires to announce that he will begin the practice of the diseases of the eye, ear, nose and throat at 152 Carlton Street, Toronto.

Dr. J. W. S. McCullough, Deputy Registrar-General for Ontario, has issued a Physician's Pocket Reference to the International List of Causes of Death. Copies may be obtained by applying to Dr. McCullough, Parliament Buildings, Toronto.

The Æsculapian Club, Toronto, held its last regular meeting for the season of 1912-13 on the evening of the 13th of March. The following officers were elected: President, Dr. J. M. Cotton; Vice-President, Dr. Bruce L. Riordan; Treasurer, Dr. Edmund E. King (re-elected); Secretary, Dr. George Elliott (re-elected); Executive Committee, Drs. H. B. Anderson, H. J. Hamilton, W. J. O. Malloch, and Samuel Johnston.

New York Skin and Cancer Hospital, Second Avenue, corner 19th Street.—The Governors of the New York Skin and Cancer

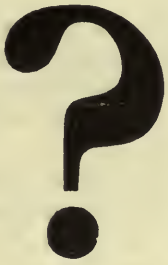
Hospital announce the following course of clinical lectures and demonstrations in the out-patient hall of the hospital on the following Wednesday afternoons at 4.15 o'clock, on surgical diseases of the skin: April 2, Dr. Bulkley; April 9, Dr. Bulkley; April 16, Dr. Bulkley; April 23, Dr. Bulkley; April 30, Dr. Bulkley; May 7, Dr. Bulkley. Surgical Treatment of Malignant Diseases—May 14, Dr. Bainbridge. Each lecture will be illustrated by cases, models, colored plates, photographs, etc. The lectures will be free to the medical profession, on the presentation of their professional cards.

The annual meeting of the Ontario Health Officers' Association will be held in the Parliament Buildings, Toronto, May 29th and 30th, at which all the Medical Officers in the Province are required to attend, as provided in Section 42 of the Public Health Act. Arrangements are being made for reduced rates on the principal lines of railway, and a large attendance is expected. The programme will be issued at an early date.

For temporary occlusion of a large vessel a soft clamp, compressing fingers or angulation by traction on a tape or silk strand placed beneath are all to be preferred to the application of a ligature, which may damage the vessel wall.—*Am. Jour. Surgery.*

The great number of artificially fed children who die in infancy is appalling, and it is due more to improper nourishment than from any other cause. By helping the infant to a point where it can help itself by proper feeding is within the province of every physician.—*Am. Jour. Surgery.*

In preparing the radial artery for transfusion it adds much to the simplicity of the procedure to dissect out the two venal comites en masse with the artery, separating the latter from the former only at the terminal inch (for cuffing). This little variation of the procedure vastly reduces the amount of handling which the artery receives, and provides a means of tying its minute branches at a distance from it, for both of which reasons the production of clotting in the artery by the dissection is obviated.—*Am. Jour. Surgery.*



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Publishers' Department

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He has tested his theories under all possible conditions.

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The Sequelae of La Grippe.—Among all of the various acute and exhausting illnesses that afflict mankind, there is none that so generally results in distinct prostration as epidemic influenza, or La Grippe. Even the grippal infections which are uncomplicated or unaccompanied by serious organic changes are more than apt to leave the patient in a thoroughly devitalized condition after the acute febrile symptoms have subsided. It is for this reason that the treatment of La Grippe convalescence is of special importance. The anemic, debilitated, depressed patient requires a systemic "booster" that will not only stimulate but revivify and

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reconstruct. It is distinctly wise, in such cases, to commence vigorous tonic treatment as early as possible, preferably by means of Pepto-Mangan (Gude), the hemic builder and general reconstituent. This standard hematinic increases the vital elements of the circulating blood, and, by increasing the appetite and improving the absorptive and assimilative functions, quickly restores both hemic and general vitality.

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The Abortive Treatment of Gonorrhea in the Male.—In cases of recent infection, where the meatus is not yet, or only moderately inflamed, Prof. Dr. Tomaszewski (Charite Annalen, 34th year), after having established the diagnosis microscopically, swabs the fossa navicularis thoroughly with cotton swabs; then the patient urinates in two portions, passing into the first glass only four to five drachms of urine. If the gonorrheal process is really limited only to the anterior portion of the urethra, then even this portion of urine will be free from flocculi, and in such cases the author applies abortive treatment.

With the patient on his back, the author fills the fossa navicularis with a two to three per cent. solution of silver nitrate, or with a properly prepared 10 to 20 per cent. solution of protargol; repeats this procedure several times, and then paints the fossa navicularis and the anterior portion of the mucous membrane with the same solution on a thin cotton swab. The patient experiences burning or some pain. After that, the entire anterior urethra is carefully syringed with a silver nitrate solution (1 in 10,000 to 1 in 5,000) or a solution of albargin (1 in 3,000). For this purpose one can use an irrigator or a hand syringe. For this irrigation Tomaszewski uses from two to three pints of the solution. In hypersensitive patients, the author injects, after treating the fossa navicularis, a few c.c. of 1 per cent. solution of cocaine. After this abortive treatment the patient must abstain from urinating for from four to six hours, remain quiet, drink nothing, and take nine gonosan capsules daily. The author uses the gonosan because, in many cases it has an undoubted anesthetic effect. The painting and irrigation is repeated in 24 and 48 hours. Then the treatment is discontinued. With this method of treatment the author succeeded in curing twelve cases of definitely diagnosed gonorrhea in two to three days. He had only one failure. All

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the twelve cases came to him for examination in 7, 14 and 21 days, and there were no signs of gonorrhea left, not even signs of an ordinary catarrhal condition remained.

(*Copy of Report.*)

F. A. Maguy, M.D.,
11500 Michigan Avenue,
Chicago, Ill., February 21, 1913.

The Sanol Manufacturing Co., 838 Wells St., Chicago and Winnipeg:—

Gentlemen,—I must acknowledge the benefit two of my patients have received from your medicine, Sanol's Anti-Diabetes. One had been under treatment for about two years without receiving any benefit, while after a few weeks of your treatment I can pronounce her cured.

The other one was a case of over four years' standing. This patient had quit treatment altogether, contenting herself with abstaining from eating sugar, but nevertheless, a pronounced gangrene had set in.

I recommended your medicine, and the diet regulations in connection therewith were strictly carried out. The gangrene, as well as the sugar, have entirely disappeared and she is in the very best of health at the present time.

Yours respectfully,

Dr. Maguy.

The Army Medical Officer in Ancient Times.—Sir Henry Morris notes that in times as remote as that of the siege of Troy army doctors were held in the highest esteem. The two sons of Æsculapius, Machaon and Podalirius were, according to Homer, very important persons in the Greek army. A stir was made in the third great Trojan battle when Paris "the spouse of Helen, dealing darts around," struck Machaon in the right shoulder. The wounded soldier was carried off the field by Nestor in the old warrior king's own chariot; and Achilles, sulking in his ship, having watched the progress of the battle, sent Patroclus to inquire what had happened. It was when describing these events that the poet exclaimed:

IF YOU HAVE A CASE of mal-nutrition where the patient remains obstinately too thin, you will be interested in the results of the new researches on Bovril carried out at the School of Physiology, Dublin. The tests made in the physiological laboratory conclusively proved the remarkable power of Bovril in building flesh. The subjects of the tests, both animal and human, increased in weight while Bovril was administered, by from 10 to 20 times the amount of Bovril taken.

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"A wise physician skilled our wounds to heal
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Amidst all the greatest heroes of the Greek army—Agamemnon, Ajax, Ulysses, Achilles, and many others—Machaon was always spoken of as "the great Machaon," as in the following lines from Pope's translation of the Iliod:

"Of two famed surgeons, Podalirius stands
This hour surrounded by the Trojan stands;
And great Machaon, wounded in his tent,
Now wants the succor which so oft he lent."

In the sixth and fifth centuries, during the wars of Persia with the Asiatic States, Darius I. (521-485 B.C.), the "King of the whole civilized world," and "the King of kings," as he called himself, as well as his successors, had Greek physicians and surgeons in their suites. In the accounts of the wars of the Persians against the Greeks we read of the physician, Ctesias of Cnidus, as being for seventeen years (414-398 B.C.) in the service of the kings of Persia. Ctesias is specially remembered, not as constantly accompanying Artaxerxes II. (404-359 B.C.), but as being a great historian, like Herodotus or Xenophon of the Persian wars. The Persians, to their honor, conducted their wars with great humanity, and treated their prisoners with kindness, and in many instances even with liberality and favor.

Philip, an Acarnanian, was physician and surgeon to Alexander the Great, and accompanied him through his Asiatic wars. There is an interesting story told of them. When Alexander was lying seriously ill at Tarsus a letter reached him warning him that Philip had been bribed by Darius III. to poison him. Having read the letter, Alexander handed it to Philip to read, and after doing so swallowed a potion which Philip had prepared for him. This proof of the unshaken confidence of the king in his physician was soon followed by Alexander's recovery.

In the second century of the Christian era the illustrious Galen was specially summoned by Marcus Aurelius to be with him in his campaign in northern Italy.—*Brit. Med. Jour.*

Soreness in the throat is a common complaint of nervous people. Close inspection will often show numerous fine white spots with red areolae—herpes.—*Am. Jour. Surgery.*

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Original Articles

SOME ASPECTS OF RENAL SURGERY*

By Ramon Guiteras, M.D., New York.

Dr. Guiteras began his talk on the kidney by saying that as he understood the audience was formed of surgeons, physicians, specialists and general practitioners, he felt that he could not divide his slides in such a way as to give a talk to any particular group that would be interesting to other groups, and that he would therefore stroll through his slides, showing them hastily.

He began with anomalies of the kidney, and took up first the variety known as single, unilateral or assymetrical, stating that they were very rare, and that, according to statistics, such a condition was found once in between four and five thousand bodies at autopsy—that in a period of ten years at Guy's Hospital, London, during which 4,632 autopsies had been performed, there had only been one case of single or unilateral kidney. He further stated that in teaching operative surgery on the cadaver for eight years, during which time he had frequently had eight or nine classes of four each running at one time, and in each class both kidneys were operated upon, he had never seen a case of unilateral kidney; and yet, in a small hospital—the Columbus—with which he was connected (of less than 100 beds), in a period of nine months, during which only 15 autopsies were performed, that three of these cases, or 20 per cent., proved to have but one kidney. He showed the three specimens from his slides, calling attention to their large size, and also to the fact that they were all lobulated and fissured,

*An illustrated lecture, delivered before the Academy of Medicine, Toronto, February 4th, 1913.

and said that such a condition was typical of a unilateral kidney. In one of these cases one fissure was very deep, extending from the pelvis to the outer border, and dividing the organ into two parts. Both the upper and lower segments of the kidney had each a fissure extending nearly half-way across it at right angles to the pelvis. This kidney had but one ureter, and was in the proper position, and it showed how easy it would be to have such an organ converted into two, if there had been two ureters present and one-half of the kidney in each renal fossa; or to have found such a kidney displaced low down in the median line, with its two segments attached by an isthmus, which would form an organ corresponding to a horseshoe kidney. The lecturer showed that a large quantity of tubercles were scattered over the kidney, and stated that statisticians, in speaking of unilateral kidneys, said that they were frequently affected with tuberculosis. This particular unilateral tubercular kidney had been referred to him from the medical side, with the diagnosis made a number of years ago, for operation on the following day, and he had made an incision down to the kidney, found it tubercular, and had removed it. The patient developed anuria immediately after the operation, and died of asthenia in eight days. There were no uremic symptoms. Autopsy showed the absence of the kidney on the right side, although there was a long projection of liver extending down, which closely resembled a kidney on palpation. An operation of this kind would be rare to-day, as kidney cases are better studied now than previously. We do, however, find cases in which we cannot feel the kidney on the other side, nor see its ureter nor catheterize it, if we do see it, and in such cases we must believe that no kidney is present on this side; and even if we contemplate operation on the other kidney, we must confirm our belief by an exploratory lumbar incision. In some cases, if we do see and catheterize the ureter, we find no urine coming down from it, and it is in such cases, as well as in cases of unilateral kidney, that we must believe that either both ureters go to the same kidney, or, more probably, that a non-functionating kidney is present on that side, and that the removal of the kidney on the other side would be followed by death.

He then took up the subject of another variety of anomalies—that of misplaced or ectopic kidneys—which he considers very interesting and instructive. He stated that they must not be confused with the displaced kidneys which were known as movable, which are held out of place by adhesions, the blood-vessels of which come from the normal side. The misplaced or ectopic kidneys which he

had encountered had the origin of the vascular pedicle below the normal site. He stated that the usual sites of ectopic kidney were at the sacro-iliac synchondrosis, on the promontory of the sacrum and in the pelvic cavity. He then showed the slide of a kidney in the pelvic cavity which had been mistaken for an ovarian cyst; another slide of a kidney situated at the sacro-iliac synchondrosis, and still another slide of one situated high up in the pelvis. In the case of the one situated at the sacro-iliac synchondrosis, he had considered it a case of movable kidney, which had become adherent to the tissues in that region. He had made the ordinary kidney incision in the loin, and thought that he felt the organ moving up and down with the respiration, and in an effort to cut down upon it through the mass of fat present, he went through the peritoneum and exposed a flattened spleen with a rounded border. He closed the peritoneum, and, cutting down farther, found the kidney, which was hydronephrotic. After freeing it, he pulled it up as far as possible and fixed it. The patient, however, suffered more pain than before the operation, and as the amount of kidney tissue was not great and the other kidney was perfectly healthy, he removed the organ, which he showed as a specimen of hydronephrosis. He said that all cases of ectopic kidney that he had had were hydronephrotic.

He then spoke of the study of a recent case of ectopic kidney. He stated the patient had entered the hospital complaining of some difficulty in urinating, of a swelling in the hypogastric region, of constipation and a general feeling of discomfort in the pelvis, which prevented him from work. When standing up, no tumor could be felt, but when lying down, one could be easily outlined, extending from the pubes up to within two inches of the umbilicus. Bimanual palpation showed the tumor beginning above the prostate. The patient, after emptying his bladder, was catheterized, and no residual urine was found present. Cystoscopy revealed a normal bladder; the ureters had normal mouths and were easily catheterized, although the excursion of the cystoscope was somewhat impeded behind. Many diagnoses were made by the different attendants connected with the hospital. His own diagnosis was that of an hytadid cyst or a misplaced hydronephrotic kidney. The patient was prepared for operation, and, assisted by another surgeon of the hospital, he opened the abdominal wall down to the peritoneum, and found the anterior wall of the bladder normal. He incised the peritoneum above the bladder and found a tumor situated in the lumbo-sacral region, and extending down into the pelvis, very much as a woman's net containing her hair hangs over

the occiput. There was no hydatid cyst present. The tissues over the tumor were tense. An aspirating needle was inserted, and some fluid withdrawn. He sent this specimen to the laboratory to be examined for urea and pus, and waited for the report. In a few minutes the report came back that neither urea nor pus was found, but that there was albumin. This eliminated from his mind the presence of a misplaced kidney, and he thought it must be some kind of a cyst situated outside of the peritoneum, and that it would be advisable to unite the anterior and posterior layers of the peritoneum, leaving sufficient space to open the cyst, put a drain in and treat it as one would a cystic cavity. This was done. The following day, on going to the hospital, he learned that both urea and pus had been found in the fluid escaping through the drainage tube, pointing to the probability of an ectopic kidney. Shortly after this he had the patient radiographed with X-ray catheters in place, and found that while one catheter went up to the pelvis on one side (the left) that the right one curled up in what resembled the bladder. The patient was then cystoscoped, and the instrument allowed to remain in place during the radiograph taking, thinking, perhaps, that the catheter might have slid down from the ureter into the bladder. This showed that the one catheter had gone into the pelvis of the kidney and the other had gone into a cavity over the lumbo-sacral region, and had curled up there. Accordingly, collargol (10%) was injected, giving a beautiful view of the pelvis of the left kidney, which was seen to be in place, and also the shadow of a large mass in the lumbo-sacral region. This mass corresponded in position to the cyst that had been operated upon. Six (6) ounces of collargol had been injected into it. He feared if he had injected more it might have given rise to too great reaction. As it was, the reaction was marked. It was then decided to again operate upon this patient, and an incision was made from just above the anterior superior spine of the ilium down along Poupart's ligament, giving sufficient space to pull back the peritoneum and tissues contained in it to the other side until the kidney was reached. The kidney was then removed and a slide was shown, giving the position of the renal vessels and the ureter. The squeezing of the kidney forced the urine from the pelvis into the bladder. The specimen of the kidney was then shown, and the hydronephrotic condition easily seen.

The lecturer then threw upon the screen three kidney specimens, showing three different grades of hydronephrosis, and the condition, size and shape of the pelvis of the kidney in these cases,

as well as the condition and position of the ureters. He spoke of the various causes of hydronephrosis, and then stated that it usually began early in life, in which case it was dependent upon the valvular conditions of the ureter, which were probably congenital. When it began later it was acquired and due to obstruction.

Rupture of the kidney was then considered briefly, and the different varieties described. He showed a slide representing the body form of a patient who had had a fall of some 20-odd feet eleven days before entering the hospital. It resembled a large watermelon tucked into one side of the peritoneal cavity, extending from the diaphragm to the pubes. "As the patient had no hematuria, and there was no history of any, it appeared to be a rupture of the spleen, and an anterior abdominal incision was made, extending through the peritoneum. The intestines were found to be flattened out between the anterior and posterior peritoneal walls on account of something situated posteriorly to it which pushed the posterior layer forward. I accordingly closed the wound, turned the patient on to the healthy side, and made a loin incision into the kidney region, evacuating several quarts of reddish-brown fluid, containing whitish particles, typical of the fluid present in case of rupture of the kidney. Whether this was due to some action of the urine or whether pus was present, I do not remember. At any rate, if pus was present at the time, it was but a very small percentage. The fluid was evacuated and the cavity was washed with peroxide and salt solution, and a drain inserted. After a few days the patient began to run a temperature, and it was found that pus was present in the cavity about the kidney. A second operation was performed, and the kidney was found to be ruptured, and also the pelvis. The other kidney was found to be in good condition and the diseased kidney was removed."

Dr. Guiteras then showed a picture of the ruptured kidney, with the urine extending through both the pelvis and the kidney. He stated he believed that a kidney which has an enlarged pelvis, dilated either by urine (hydronephrosis) or by pus (pyonephrosis) is more liable to be injured than any other variety, and he thinks that a pyonephrotic kidney due to stone is especially liable to rupture. He said that this was a case of subparietal rupture of the kidney, with an extensive accumulation of blood and urine about it; that he would later show a case of subparietal rupture, in which the fluid was subcapsular. He stated that he had had quite a number of cases of subparietal injury from one cause or another, but only one open wound, a direct injury resulting from a stab wound in the back.

Nephrolithiasis.—The lecturer then showed slides of a few kidneys containing calculi, illustrating the changes brought about in these organs through them. His first picture was that of the kidney of a middle-aged woman, who entered the hospital complaining of dyspepsia and malaria. She said that she had suffered from dyspepsia for a number of years, but it was only within the last few years that she had had the attacks of malaria, which had lasted from a few hours to a few days, accompanied by chills, fever and sweating, and then subsiding. On examining her abdomen, a large mass was found on the right side, tender to the touch, which she said was an enlargement of her liver that she had had ever since the malaria began. It was evident, however, that it was not the liver, but an enlarged kidney below it. It was quite prominent in the front. She was kept under observation for a few days, and her urine changed considerably, sometimes containing a large amount of pus, and at other times comparatively little. The pus came from the right side. Her attacks of malaria were evidently those of renal retention in a perinephritic kidney. When the urine was clear the kidney was enlarged and the patient was septic, and vice versa. The urine coming from the right side was mostly pus, and contained but a small quantity of the normal solids, showing that it was a case of pyonephrosis in a practically destroyed kidney. The other kidney was functionating sufficiently well to carry on the necessary elimination in case that it proved advisable to remove the right organ. A loin incision over the enlarged kidney showed it to be about nine inches long, and of relative width. It was removed, and on opening it, the five stones seen were found, one of which was bifurcated and four inches long. This particular stone evidently originated in two of the kidney calices, and they had grown down into the pelvis, and there formed a common trunk, which trunk engaged in the pelvis opening and caused from time to time temporary unilateral anuria; but when sufficient pus and urine had collected in the kidney pelvis to dilate it, a stretching of the organ caused it to push the pelvic opening away from the part of the stone lodged in it, and the retained urine escaped again. The other stones were from $2\frac{1}{2}$ to $1\frac{3}{4}$ inches in width, and were more or less rounded. It was the variety of kidney which called for removal. The stone showing the particular formation plugging the ureter was then shown. Very recently he had removed a kidney eleven inches long, with two such bifurcated stones, one of which was so wedged into the ureter that no amount of dilatation was sufficient to discharge it.

Another case of pus kidney due to stone was then shown, which the lecturer had seen on a certain afternoon and which he had sent to the hospital for observation and probable operation. The patient had a temperature of 101, pulse of 90, respirations 36. On arrival at the hospital in an ambulance she had a temperature of 105, pulse of 130, respirations 46, and was in a state of collapse. She responded to stimulation, however. On examining her on the following day the well-defined renal tumor which had been felt the day before was simply an ill-defined mass in the loin. The case seemed a clear one of pyonephrotic kidney, with renal retention due to stone, which had ruptured during the trip to the hospital, giving rise to perinephritic abscess. The abscess was opened and drained. A few days later an exploratory nephrotomy was performed, but no renal stone was found on palpating the pelvis. As the patient continued to run a septic temperature and lose strength and weight, a nephrectomy was performed, showing a stone embedded in a large mass of fibrous tissue that had not been detected at the time of nephrotomy, into which a probe could be passed from the pelvis of the kidney. This was a displaced, movable, pyonephrotic kidney containing a calculus.

Another case of unilateral anuria with great enlargement of the pelvis of the kidney due to an impacted stone at the beginning of the ureter was then shown. The tumor had been an enormous one (9 or 10 inches in all diameters), convoluted and distended. It was considered an emergency case and was removed as such, although it should have been opened and drained. At the time of the operation the kidney was almost hidden, but later on, after the pelvis of the kidney had been opened sufficiently to see the impacted stone, there was sufficient leakage of fluid from the cavity to show the presence of considerable good renal tissue. It may here be said that a kidney 10 inches in length when removed, after it has been opened and the pus and stones removed, and it has been preserved in fluid, may decrease to less than one-half the size. He considered cases of anuria due to stone the most interesting in renal surgery, and stated that he had had numerous cases of patients with but one functionating kidney who had no idea that one of their kidneys was useless. At home he has slides of many such cases, which he calls derelict kidneys.

Cysts.—A few cystic kidneys were then shown. The first one was that of a large serous cyst, which are generally single, although there may be two in one kidney. In this case there were three small cysts and one large one. The kidney tissue was very much deformed and the lower part of the organ was almost entirely destroyed. The

lecturer said it was considered one of the best specimens of serous cyst ever removed.

Hydatid Cyst.—The next was a case of hydatid cyst of the kidney. The patient had come in suffering from great pain in the right loin. She had had a slight hematuria. The kidney was felt to be very long and very tender. The patient had slight elevation of temperature. Incision showed a very long kidney extending into the renal fossa downward to the iliac fossa. It was very adherent to the diaphragm. The lower end of the kidney was somewhat curled. A beautiful white cyst the size of a duck's egg but round was seen. It seemed to spring from the junction between the kidney proper and its pelvis. This was opened and a large number of small white cysts escaped, running down by the side of the ureter and out of the wound. A piece of very white thickened membrane was found and removed from the inner part of the sac. It was a typical case of hydatid cyst with daughter cysts present. The outer side of the cyst wall was cut away and the remaining part was treated with pure carbolic acid, followed by alcohol. The patient had ether pneumonia after the operation, but later had a satisfactory recovery. The lecturer stated that at the time of writing his book he had found no other illustration of hydatid cyst of the kidney than this case of his and that the literature of the subject had been thoroughly gone over.

Polycystic Kidney.—The next slide showed the kidneys of a patient in one of his hospitals who died of uremia. This patient was 55 years of age and his kidneys had been gradually increasing in size for many years. The right was 10 x 5½ inches, weighing 56 ounces; the left 9¼ x 5 inches, weighing 49 ounces.

The next slide showed an illustration of the larger kidney split in two—a beautiful exhibition of cystic development. It seemed wonderful how anyone could go through life with such enormous kidneys suffering but little inconvenience excepting from their weight. The urine in these cases showed about the same changes as in interstitial nephritis. They were probably due to congenital causes, either beginning at the time of birth or shortly thereafter, increasing gradually but slowly in size. Such cases should be considered inoperable, unless an abscess is present, when it can be opened and drained. The removal of one such kidney is very fatal, and in case of an operation the patient would probably not live as long as if the kidney had been left alone.

Malignant tumors of the kidney were then considered and the first slide shown was that of a sarcoma. The patient had entered

the hospital suffering from great pain on the right side, where a large tumor could be felt. He was much emaciated and had constitutional symptoms. Although his condition was very serious, an exploratory incision was made, revealing an enormous kidney with a papillomatous appearing mass sprouting out through the capsular propria. The growth was very extensive and so fragile and friable that a great portion of it could have been scraped away with the finger, but it was extremely vascular and bled profusely when touched. The bleeding was stopped by very hot water and peroxide and the wound was closed, a drain going down to the kidney. The patient died very shortly after the operation and the specimen was secured. He said that the specimen showed what great changes can take place after its removal, as this papillomatous mass of friable and fragile tissue composing the tumor after it had been kept for some days in the preservative fluid had changed into solid looking tissue which, on cross section, closely resembled a piece of beef. He further said that only a few days before he had removed a prostate tissue of which very much resembled that which he had described in the kidney; that he had immediately placed it in gauze and taken it to be photographed, and even in an hour's time it had changed so as to look like a mass of beef.

The lecturer then showed a beautiful specimen of carcinoma of the kidney. He had been called to see this patient on account of hematuria and had found him wearing a large truss just about Poupart's ligament, specially constructed. On removing the truss he found a very large round tumor, which was freely movable. He said that he had had this condition for some time which had been diagnosticated as a hernia and the special truss had been made for it, but that he felt a little worried over the blood in the urine. An examination of the urine showed the left kidney to be normal—this one (the right) to contain cancer cells. The patient was operated upon and the pedicle was found to be of unusual length; in fact so long that the tumor could be freely moved over a wide range and pushed down to the region of the bladder. The kidney was removed—nephrectomy. The patient was very uremic after the operation and only seemed benefited by purging with large doses of blue mass. A specially constructed pen had to be made around his bed, in which he constantly roamed about at night, in a delirious condition. The patient finally recovered and has lived six years, and much to my surprise his family report him comparatively well.

The next case shown was one of hydronephroma. He stated that whereas the yellow mass could be plainly seen on the outside of the

kidney, they were much more distinctly seen on cross section. There was nothing particular about this patient excepting that he had for some time been losing weight, suffering from hematuria, and had some dragging feeling and occasional pain in the left side. His right kidney, however, had been found perfectly well. He had a malignant cachexia and a very large varicocele on the left side (the largest he had ever seen). I mention this because the spermatic vein on the left side runs into the renal vein and tumors of the kidney on this side are liable to cause left-sided varicocele.

DR. LORD'S UNDERTAKING

By A. C. E.

They were a party of four—four physicians. In a retired corner of an up-town club to which one of the quartette had invited the others they sat four-square at a round table. Eight years before they had been classmates. Two were practitioners in the city; the others from the country; one, indeed, from the edge of civilization in the remote northland of New Ontario.

Their names were—oh, it doesn't matter who they were or what their names were, save one, Dr. Ferdinand Lord, of Scarth, New Ontario.

Reminiscences of college days had gone the rounds; stories had been told, some old, some new; and then, as frequently happens when medicos get together, the conversation drifted into "shop" talk.

"How on earth, Ferd," queried one, "did you with that name of yours ever strike for the wilds of New Ontario?"

"I'll tell you; but first give me a little more of that 'squirt,'" and Dr. Lord reached his glass over to the host.

"Sh-er-er-er!"

"When I was graduated," began Dr. Lord, "my people thought because I had taken the gold medal I should hang out my shingle in the city a few miles from father's farm, but I knew it would be slow going for three or four years. I had been to Scarth practising on my own hook in summer holidays of fourth year and liked the place and liked the people, and, I believe, the people liked me. Well, along about the first of August, when I was doing a land-

office business, a graduate came in, told the people I was only a student, had no license to practise; told me he had picked Scarth out for himself and that he was going to stay and that I had to get out. I was as big as he—for I am nearly six feet and weigh a few over two hundred—but I got.

"In the following spring, as soon as I got my valedictory off my chest, I made tracks for Scarth; and this time with my diploma in a quarter-cut oak frame, I went prepared to stay. I ran that 'sucker' out of Scarth in less than a year and I have been there ever since. The past four years I have always kept an assistant. Practically this is my first holiday in eight years. I didn't think he used me right when I was there as a student. Might have said to stay on and make all I could, for he knew I would be going in two months' time anyway," and Dr, Ferdinand Lord settled back in his chair as unruffled as though it were but a day since he had despatched his opponent.

"But what keeps you there now?" questioned the host. "Why not sell out and get into your home city? Haven't you had enough of roughing it?"

"I have. But I like those country people, primitive farmers, miners and lumberjacks though they be. There's lots of the simple life—plenty of room to move about; what you call go, excitement. I'd miss the long drives, the mud and the slush of the spring and the fall, the deep snow, the drifts, the sleet, the blizzards, the cold stormy days, the rainy nights. You parlor fellows don't know—have no realization of the satisfaction there is in doctoring in the northland," and the big, strong, robust country practitioner gave vent to a loud guffaw, which rattled the glasses on the table and banged up against the beamed ceiling—and started an electric bell ringing in a distant room.

Said the other city man: "One thing, Ferd, you're not troubled much with quacks, osteopaths, Christian Scientists, dead beats and others of such ilk."

"Am I no?" exploded Ferd. "By the same token I could tell you a Christian Science story, only it would take too long, and my little friend here from the country, 'Shorty,' as we used to call him, might feel jealous that he didn't get a chance to scintillate."

"Don't mind me. I'm (hic) enjoying myself," gurgled he responding to the name of Shorty.

They all settled down more comfortably in their arm chairs while Dr. Lord lighted a fresh cigar.

"It was the month of January, 19——well, I had been practising in Scarth three and a half years.

"The village had about six hundred inhabitants, fully one-half of whom were sawmill hands and lumberjacks. There was a scattered farming community extending thirty to fifty miles on each side of the village, which itself, as you may know, is on the north shore of a large lake. A railway ran through to the Soo, and I often used passenger trains, freights and even handcars to get to my outlying patients. Two and a half miles north the mine is situated, and I had to minister to the bodily ailments of two hundred miners. So you can see I had no sinecure and had to keep going some to stay with my practice.

"I was busy in my office one night about seven o'clock, in the act of making up some powders for an old woman with the 'janders'—there were seven or eight waiting in the outer office—when I heard the door from the street shoved violently open and a voice I knew all too well calling out where the doctor was.

" 'I'm in here, Jack; come on in!' I called out to him.

"Now this farmer, who lived ten miles out of Scarth, had always been one of my best friends for reasons I need not now pause to explain, had a good three hundred acre farm with good buildings on it for that country, and I knew he would not hitch up his horse and come into the village at that time of night for nothing; and I well knew I would have to hitch up my horses and get away quickly. The people in the office would have to wait.

"It was a bitter cold night—twenty below—not that we minded that very much, but you fellows might thing it something down here.

" 'Doc,' he said, (there's not much 'Doctor' in that part of British America), 'you must come out right away to Joe Mead's. There's something wrong, bad, very bad, there.'

"Joe Mead lives on a little clearing of twenty-five acres, just alongside of Jack Newton, poor as a starved rat, and consequently the father of a large family—and with further bright prospects, I understood; and he and his wife, strange to relate, in that country, almost beyond the pale of civilization, were Christian Scientists—for which, you will perceive, I was not losing any sorrow nor sleep.

" 'Nothing doing, Jack. Joe Mead has never employed or even consulted me ever since I have been in Scarth. What's the matter with Nancy?'

"Nancy Younger was one of those old, flannel-petticoated, sack-tied-in-the-middle busybodies, the bane of every physician, ubiquitous, peripatetic, with some trouble or gossip always 'on the

anvil'—a better nurse and doctor in her own mind than anyone else; but she was away on a visit to a distant relative, so Newton had informed me.

"'Doc,' said Newton, 'you'll simply have to come. The children are all sick—five of them—sore throats; likely diphtheria; and the mother has expectations. Mead came to my gate and called me out of the house and told me all about his troubles about two hours ago. I knew you were health officer and you have got to go whether Mead wishes it or not.'

"'What did Mead say? Did he tell you to go for me?' I responded.

"'No. He said he didn't want any doctor bothering around him.'

"That settled it to my mind. I was the medical officer of health of that district and it was my duty to go and see what the matter was, so that, if necessary, I could quarantine the whole outfit and protect the neighbors. I had had some cases of diphtheria out in that school section just before the holidays, but considered I had it all stamped out.

"I got rid of the patients waiting in the outer office by telling them they would have to come back in the morning, sent Jack to have my man harness the team and put them to the cutter, and began fixing up my bag with antitoxin and spray mixture and swabs for diphtheria, as I pretty well calculated Jack had not made any mistake from what he had been told by Mead. I picked up a large red card and with pen and ink soon printed in rustic capitals: 'DIPHTHERIA HERE—STAY OUT.' If my surmise proved correct I would tack this on the roadside gate. I use red for diphtheria; you fellows down here use blue; or is it yellow?

"In a few minutes my man drove up with a dash and a jingle of sleigh bells. I went back into my inner office, which was also drug room and sleeping room—a sudden thought had struck me—took off the bed a fine new buffalo robe, put on my black rat coat and cap and started for the door, picking up a foot-warmer on my way out.

"I had asked Newton how the roads were, if there were any drifts, and having been told they were like macadam, no sooner was I in the cutter and the reins in hand, than I gave them a shake and my team, always in splendid fettle, whisked us down the village street in a trice.

"At the end of the village there was a fine large brick house, owned and occupied by the superintendent of the mine, which,

you remember, I told you was two and a half miles north of the village. I pulled up here and gave a loud 'Hallo!'

"While some one is coming to the door, I may as well tell you I had a nurse there, just finishing a case of typhoid, who was going home the next day to your city. Her name was Miss Christie; probably you two fellows know her, but I'll not stop to ask you.

"The superintendent came out himself.

" 'Mr. Metcalfe,' I called, 'tell Miss Christie to hurry up and bring her uniform and other paraphernalia. I'm going to take her for a drive in the country and may bring her back in a couple of hours or may leave her out there for a couple of weeks. I don't know yet.'

"Miss Christie came to the door as I finished and heard the latter half of my order.

"She flew away and was out in a few minutes; and as the moon was shining brightly I thought she looked very fetching coming down the path in the snow, clad in a long black Persian lamb coat and cap to match.

" 'How thoughtful of you, Dr. Lord!' she exclaimed as her feet rested comfortably on the foot-warmer. I shoved the buffalo robe well in beside her with my left hand, took the reins in both hands again, gave the team a flap with them, and we were off for our ten-mile drive in real earnest.

"As we jingled along past white-capped stumps, the stake-and-rider fences, the stump fences on either hand seemed one long, interminable streak. We soon caught up with and passed Jack Newton, he turning out to allow us to go by, I calling out to him to 'hook on'; past the scattered farm houses, patches of woods on either side, a big boulder or a Christmas tree. I knew my team could easily do the distance under fifty minutes, so I left them pretty much to themselves.

"I commenced telling Miss Christie what I suspected was the matter at Mead's, whither I was bound; and when I would turn to see if she were snug and comfortable I found myself contrasting my position with yours down here. You would envy me, I knew, sitting there that beautiful moonlight night by the side of that pretty nurse skimming through the wilds of New Ontario. But I suppose you were sitting down here somewhere toasting your patent leather pumps before a gas or electric grate.

"When we reached Mead's and drove up his lane to the little farm-yard, I handed the reins over to Miss Christie and told her to just walk the horses around in the yard while I went in to spy out the lay of the land.

"In response to my knock, Mead himself opened the door and I went in. I tell you, boys, I never want to see a sight like that again. You can talk of your slums in the city, but there are poor, miserable wretches in the country as well.

"In a bed placed a few feet from a small cook stove were the five children, three at the head and two at the foot; and on her knees at the side of the bed away from the stove, was the mother, praying. The children, who ranged from ten to two years were all sleeping save one, the eldest, a rather good-featured girl.

"As my first glance was taking this in, I could see beyond the bed a door leading into another room, where there was another bed, which seemed to have been occupied, as, indeed, it had been, for the mother arose whilst I was taking off my coat and quietly withdrew to her room. I saw also at this glance that the eldest child was very pale, breathing hard, croupy, was, in fact, dying.

" 'Mead,' I said, 'that child is dying of diphtheria before I look at her. Why didn't you send for me three days ago?'

"He sat in front of the little stove and all he did was just to shake his head sullenly and utter one word, 'No,' without even looking up at me.

"I was astounded at the apathy of the man. What was it—grief, indifference, or simply stubbornness?

"But I was not to be balked now. I was on the ground and saw the state of affairs. I decided to take a firm stand.

" 'Here! Hold the lamp 'til I look at these throats!' I commanded-in a steady tone. I was not prepared for his answer.

" 'What are you going to do?' jumping to his feet. 'I didn't send for you. I want no doctor to come into my house and order me around. I want no doctor at all. They're not sick. I sent Jack Newton for Nancy—Nancy Younger,' and he faced me across the bed.

" 'Nancy Younger is away,' I replied. 'Nancy Younger would be no good to you in a case like this. She might if your wife needed her. Come! Hold the lamp!' and I moved nearer the head of the bed.

"He looked at me, stupefied.

" 'Nancy away—and my wife going to be sick, possibly to-night,' he gasped.

"In the silence of the moment a happy thought struck me. I had not said a word to Miss Christie about this family professing Christian Science principles, so I said to him:

" 'Mead, there is a nurse out in the cutter, a real good, Christian, scientific nurse—I slurred the 'scientific' a trifle—who will

attend your children, and wife, if necessary, until they get well. I'll bring her in'; and before he could raise any objections or acquiesce I slipped on my coat and cap, went out, tied and blanketed the horses, and brought in Miss Christie.

"I was fearful now that Miss Christie might make a blunder and give it all away; but I was determined on trying to pass her off as a Christian Scientist, and trust to luck and their illiteracy in helping me out.

"Upon my re-entering he seemed a different man. The mother was again on her knees at the side of her children. Mead came forward and shook hands with Miss Christie and said:

" 'And so you're one of us?' questioningly.

"Miss Christie scarcely knew what he meant, except, perhaps, that she was to live with them for a week or two, and so gave the best possible answer under the circumstances, by simply inclining her head and replying 'Yes.'

"All going along well, so far, I renewed my efforts for an examination of the children.

" 'Well now, Mead, as health officer, I must examine these children and then I will leave them to the nurse. I suspect they have all got diphtheria, and if so your house must be quarantined. It'll never do to allow neighbors to come in here—and they're not likely to anyways.'

"He looked appealingly at the nurse, who, having divested herself of cap and coat, quietly conducted the mother to her room and then simply went and got the lamp and held it for me; and I awoke them all, one after the other, and found a regular nest of it—all had it—and one, I knew, was dying.

"While examining the throats I was saying nothing, but thinking, and I had come to the conclusion that I would take the nurse to a corner of the room and tell her what to do, in a whisper; not to talk any more than she could help, but just give them all antitoxin and attend to them all in the regular way; also, even going so far as to give immunizing doses to the father and mother, if she could. I did this before I left; told her also, in my opinion, the eldest girl—there were two, and three boys—would probably die through the night, I felt sure, but to give her a dose first and wait to see. Then I hurried off home to my office, after getting a stone from the shed where I had tied the horses, and with tacks from my pocket, tacking up the big red card.

"The next morning I drove out to see the nurse. Miss Christie had had a trying time of it, but she was there and proved herself a

true, Christian, scientific nurse. She told me that on my leaving the night before she immediately prepared to give them all antitoxin. On Mead asking her what she was going to do she told him, and he objected right off the bat. The wife from her bed joined in the objections. But on Miss Christie assuring them that everybody always used antitoxin in diphtheria nowadays, when she said *we* always use it, with the accent on the *we,* they made no further objections.

"You see, Mead thought I had said I had a good Christian Science nurse with me, when I had said a good Christian, scientific nurse—and so she was.

"About one in the morning the eldest child had died; and almost immediately after the mother was taken ill and about six the stork paid another visit to that little household in the northland. Miss Christie had followed out my directions explicitly and had kept her mouth closed as much as possible.

"On entering the house that morning, as health officer I explained, I saw the nurse had not been idle for a single moment. She had screened off the little bedroom, had her uniform on, and had moved the children's bed as far away from the new brother as possible. The dead child she had laid out on a small table in the children's bedroom, now unoccupied on account of the sickness and the cold. She had, in fact, done everything possible to do under the trying and very exceptional circumstances.

"I took Mead a little to one side, told him I was sorry for his trouble, and that I would do anything I could for him in his helplessness and misfortune. I was very careful not to make any mention of doctoring or of leaving any medicines, or of even going near the children at all. I left that all to the nurse. I got a chance to tell her to give them all another shot and double-up on the next child, a boy, who, I could hear without looking at, was also becoming croupy.

" 'Now, Mead,' I said, 'Newton has a family; the undertaker in the village has a family, and he himself is down with pneumonia; and the minister, too, has a family of small children—if you agree, I'll drive in and get the little casket, instruct the sexton to open a grave—it will be pretty hard work with so much frost—and then I'll come out again to-morrow morning and act as undertaker, and you can bring your own horse and cutter or sleigh, with which to return.'

"The poor fellow could only squeeze my hand and say nothing. I saw he was suffering badly, and apparently that some sort of a struggle was going on within him.

"Well, I acted as undertaker to that little funeral the next day; and I arranged for the minister to come and stand a rod or two away and read an abbreviated burial service. Mead looked at him, but kept quiet. When all was over, I said to him, kindlier like:

"' Joe, I'm sorry to have to tell you, but I heard that eldest boy croupy this morning. It's getting into his windpipe, and I am afraid there is more trouble in store for you.'

"He broke down utterly.

"'Oh, doctor, don't let him die too! Come out and do all you can for him. I've been a fool. My wife's been a fool too; and she knows it now and so do I. She said this morning to me there must be something in doctoring, when you have gone to all the trouble you have and done what you have for us this day.'

"So, as soon as I could I drove out to Mead's again, but this time as the doctor, not as the medical officer of health, nor as the undertaker; but it was of no avail. These two had taken the disease first. I had to repeat the little funeral scene the following day.

"In due course of time and under the able, Christian, scientific nursing of Miss Christie, the rest got well, and no new cases developed. I have never seen a more grateful man or woman.

"It is only recently that I undeceived them with regard to Miss Christie's principles and nursing. I was in a tight place that first night and I did the best I could."

The three other physicians surveyed Dr. Lord silently, as he blew a big whiff of tobacco smoke from a long pull at his cigar, up at the beamed ceiling.

"By George! that nurse was a brick, though, boys," exclaimed the host, the only unmarried man of the party. "I should like to meet a nurse like that. Where is she now, Ferd?"

"Mrs. Lord," was the laconic reply.

THERAPEUTIC NOTES

Pyelitis.—Hunner (*Surg., Gyn. and Obs.*) states that the object of treatment is to rid the patient of pain and discomfort and to restore the kidney to the secretion of urine free from pus and bacteria. Pelvic massage may have to be employed if the pyelitis does not clear up under dietetic and hygienic measures. He has had good success in colon bacillus infections with silver nitrate solutions. These are first used in 1:3000 strength, with subsequent flushings of normal saline or boracic acid solution. Then he uses 1:1000 strength, and with this flushings may be unnecessary.

Tubercular Glands of the Neck.—Mutschenbacher (*Beitr. z. klin. Chir.*) comes to the following conclusions regarding the conservative treatment of tubercular glands of the neck:

1. Surgical treatment should be either extremely radical or absolutely conservative. Partial curettage or excision do more harm than good.

2. Treatment should be begun conservatively, as it can do no harm and frequently converts an inoperable case into one which is favorable for radical treatment.

3. Conservatism should be practised in cases of recurrence following operation.

Fracture of Patella.—Gelinsky (*Zentralbl. f. Chir.*) advocates early movement as essential in the after-treatment of fractured patella. This overcomes the tendency of muscular contraction and contraction of the soft parts, which would produce a stiffened joint. He devised a splint which permits graded flexion and extension of the joint without change of position. It is a double inclined plane with ratchet attachment at the angle. In the base of the apparatus runs an endless screw, the thread of which is very fine and the attached handle very long. This provides for graded movements. Flexion gradually stretches the muscle, and if tension occurs it is at once stopped. In ten or fifteen minutes it can be repeated. The exercises can be performed in this way twelve hours a day. At the close of the day's exercise the space traversed is gone over rapidly several times by simply turning the handle backwards and forwards. The splint has also been used effectively in gonorrheal and other inflammatory affections of the knee-joint.

Puerperal Sepsis.—W. Ward (*Am. Jour. Obs. and Dis. Women and Children*) reviews the last 8,000 deliveries in the Sloane Maternity, New York. In these there were 39 cases of puerperal sepsis, 0.485 per cent. Of the 39 cases, 33 had no interference postpartum except simple vaginal and intrauterine douches. There were four digital examinations on four patients. In two of these that was sufficient. In the other two extension into the parametrium had taken place, requiring later posterior vaginal sections. In one of the remaining two patients delivery had been by cesarean section, and there was breaking down of both abdominal and uterine wounds. The remaining case was opening by laparotomy an intramural abscess of the uterus. There were eleven deaths, a mortality of 28.2 per cent. One of these, however, died of pulmonary embolism and another of pernicious anemia. Five deaths were due to general septic peritonitis and four to pyemia and exhaustion. The prophylactic treatment consists in extreme care, limiting antipartum, intrapartum, and postpartum examinations, also interference and instruments. The active treatment consisted in adequate uterine drainage by simple vaginal and uterine saline douches. If this proved insufficient, the uterus was explored once with the finger. Secondary foci were treated expectantly as they arose and the general condition of the patient supported.

Alimentary Toxemia.—Saundby (*B. M. J.*) does not consider that infrequent or incomplete evacuation is a cause of this condition. Nor is the danger of poisons introduced with food to be so much feared as under physiologic conditions; the natural protective agencies in the alimentary system will shield the organism if they are not present in overwhelming amount. Wholesome food in reasonable quantities may consist of animal or vegetable protein, carbohydrates and fat in due proportion. The evidence is not conclusive that animal protein is directly or indirectly the cause of the condition. Treatment consists in elimination of the poison already present, prevention of further introduction and reinforcing the natural protective agencies. If there is extensive disease of the wall of the colon, the exclusion or removal of this organ is justifiable after a reasonable trial of medical methods.

Carbuncles.—J. Reynolds and R. J. Reynolds (*The Lancet*) administer internally dilute sulphuric ac. B. P. in 20 to 30 minim doses, each dose diluted with two ounces of water, every four hours.

Small doses are of no value. By this method of treatment the infiltrated area becomes strictly circumscribed in twenty-four hours; the slough softens; in the next few days pus discharges freely; the whole affected area shrinks, and healthy granulations form. Healing takes place in a comparatively short time. The only external dressing is one of phenolized petrolatum (1 in 20). Boils, pimples and severe cases of acne have yielded readily to this treatment. In cases of infection it has also been employed successfully, so-called blood-poisoning, bronchiectasis and in pulmonary tuberculosis.

Uses of Apomorphin.—R. B. Epting (*Int. Jour. Surg.*) says apomorphin is especially useful as an emetic, as it acts on the vomiting centres, is prompt, and, therefore, a quick remedy in poisoning. It is useful in gastralgia and acute indigestion, croup, asthma, hysteria, hystero-epilepsy, eclampsia, tetanus and convulsions, even from strychnine poisoning. If drowsiness has not yet supervened, it may be used even in opium poisoning, before the stomach pump. Where relaxation is wanted, 1/20 gr. and 1/12 gr. morphine acts promptly. For delirium tremens, or a big drunk, a small dose, with a small dose of morphine and atrophine and some heart stimulant, will sober the patient in a short time. As an expectorant, it may be used in small, frequent doses by the mouth. In hepatic or kidney colic relaxation can be produced with 1/30 grain of apomorphin added to morphine, and with less bad after-effects. Reasonable care should be taken in giving apomorphin to the weak, aged and small children.

Insomnia.—Taussig (*Int. Med. Jour.*), reviewing recent literature, states a definite advance in our knowledge of the best way to use hypnotics was marked by the work of Buergi. He showed, on the basis of animal experimentation, that if two or more hypnotics of the same pharmacological character are used in combination, the resulting effect is merely that of the sum of the two taken separately. Two or more hypnotics, of a different pharmacological action, on the other hand, given together, exhibit a potency much greater than the sum of their individual power. Thus there is nothing to be gained by giving veronal and trional together, or either with chloral. On the other hand, the addition of a small amount of morphine or bromide to a methane hypnotic greatly increases the power of the latter. Bromural is an example of this.

Another group of drugs that apparently increases the activity of these hypnotics is that of the antipyretics. The combination of acetphenetidin with veronal, first advocated by von Noorden, is especially useful, comparatively small doses of the combination producing results equal to those of larger doses separately.

Vermin-infested Clothing.—J. R. Currie (*Med. Off.*) issues cards to parents as follows: "To destroy lice, shirts and similar articles of clothing should be washed well with soap and water and then boiled. Any clothes that would be damaged by washing or boiling should be thoroughly steamed. Then, after drying, the clothing should be searched for nits. These are of small size, and tightly fixed to the stuff. They are chiefly found in seams and creases. To destroy nits, turn each article of clothing inside out, and iron it thoroughly with a hot iron, especially at seams and creases. If there is lining, as in frocks, sleeves of coats, etc., iron well on the lining. In dealing with trousers, first turn them inside out, then turn over the free edges of the seams on both sides and iron firmly close up to the sewing. Then remove dead nits and brush the clothes thoroughly. To cleanse the child, give a hot bath, washing well all over with soft soap. If the child's bed has become infested, the bedding and bedclothes should get prompt attention also."

Leucorrhea.—Plique (*Bull. Méd.*) says in some cases of leucorrhea in young girls bathing in tepid alkaline water containing one-half pound of sodium carbonate may suffice for relief. He also advocates local washings with one per cent. borax solution, or, if the inflammation is severe, two per cent. decoction of althea root. Where these measures are not effective, douching with normal saline or borax should be advised. If there is more or less odor, some preparation containing sodium hypochlorite should be used. In young girls search should be made for constipation, pin worms, chlorosis, or scrofulous chloroanemia.

Alopecia Areata.—Kolipinski (*Merck's Report*) uses a 1 to 2 per cent. aqueous solution of nickel sulphate for compresses, or applied the lotion to the diseased area and left it to dry. After the expiration of a week a growth of fine new hairs was observed, and in six weeks the normal covering of the scalp was restored.

Retention of Urine in Paralysis.—Taddei (*Policlinico,* Rome) says strychnine by subcutaneous injection has a remarkable action in overcoming the paralysis of the bladder. He uses four to twelve injections, each 0.02 c.c. of a 1 per thousand solution, and commences this at the first sign of retention, suspending as the function returns, and renewing on appearance of symptoms. Taddei has used strychnine with marked success since 1904 at the insane hospital in his charge. He summarizes thirty-two cases of successful treatment.

Local Infective Processes.—S. A. Pfauneustill's (*Merck's Reports*) new method of treating local infective processes consists in the administration of sodium iodide(or potassium iodide) to the infected tissue through the circulation, and applying hydrogen peroxide externally. By the interaction of the iodine salt and H_2O_2 in the blood, iodine is set free, and to its bactericidal power the effectiveness of the method is due. It is only of value in ulcerative infective processes. It is indicated in tuberculous laryngitis (H_2O_2 inhalations externally), in lupus and in external tuberculosis, in lupus of the mucous membranes and in non-tuberculous local infections. He has also obtained good results in the treatment of old wound cavities after operations for empyema and osteomyelitis, and in old infected ulcers of the leg, as well as in fresh operation wounds of abscesses and cellulitis.

Chronic Bronchial Affections.—Singer (*Deut. Med. Wochen.*) writes of the "thirst cures" in chronic bronchial affections, such as bronchiectasis, bronchoblenorrhea, putrid bronchitis, bronchial asthma, etc. Ordinarily in the treatment of these the aim is to secure an expectorant effect. This is brought about through inhalations, drink cures, climatic and hydriatic procedures, balsamics, posture cures, compression cures, etc., the opposite idea of a dry cure. This may be carried out as follows: For three days, fluids to extent of 200-400 cc.m. in form of water, milk and soup, or entirely as white wine. If extreme thirst develop, use the juice of oranges or lemons. On the fourth day as high as 2000 cc.m. may be drunk. If necessary, thirst may be treated by a few drops of anesthin or eucain solution. On dry days the sputum is much lessened, not only during those days, but permanently. Sweating cures, electric light baths and atropin will enhance this treatment.

Reviews

Heredity and Eugenics. A Course of Lectures Summarizing Recent Advances in Knowledge in Variation, Heredity and Evolution and Its Relation to Plant, Animal and Human Improvement and Welfare. By WILLIAM ERNEST CASTLE, JOHN MERLE COULTER, CHARLES BENEDICT DAVENPORT, EDWARD MURRAY EAST, WILLIAM LAWRENCE TOWER. Chicago: The University of Chicago Press.

At a time when eugenics is commanding so much attention from scientists, the profession of medicine, legislators, educators, the press and educated people in general, this book cannot fail of a hearty reception. It embraces a course of lectures delivered during the summer of 1911, on heredity and allied topics, at the University of Chicago. To those interested in genetics the book will be found to give the latest and best information on the subject. To those who wish to learn something of this comparatively new science, close study will well repay them. The chapters are as follows: 1. Recent developments in heredity and evolution. 2. The physical basis of heredity and evolution from the cytological standpoint. 3. The method of evolution. 4. Heredity and sex. 5. Inheritance in the higher plants. 6. The application of biological principles to plant breeding. 7. Recent advances and the present state of knowledge concerning the modification of the germical constitution of organisms by experimental processes. 8. The inheritance of physical and mental traits of man and their application to eugenics. 9. The geography of man in relation to eugenics.

W. B. Saunders Company, publishers, of Philadelphia and London, have issued another edition (17th) of their handsome illustrated catalogue.

In going through this edition we find it describes nine new books and ten new editions, not described in the previous issues. These new books are of great interest to the medical man, because they treat of subjects being daily discussed in medical circles.

Any physician can get a copy of the Saunders catalogue by dropping a line to these publishers. A copy should have a place on the desk of every physician, because it is most valuable as a reference work of modern medical literature. Send to Saunders to-day for a copy.

Dominion Medical Monthly

And Ontario Medical Journal

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Genito-Urinary Surgery: T. B. Richardson, W. Warner Jones.
Anesthetics: Samuel Johnston.

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COMMENT FROM MONTH TO MONTH

Are the British militant suffragettes insane? Their tactics, or crimes, can only be paralleled by the extreme ways and means of the anarchists, who never hesitate to employ arson and bombs, which have culminated in murder.

Or are they hysterical? And is the militant movement an epidemic of hysteria?

There seems to be no scientific word properly applicable to the condition known as "hunger strike."

Sitophobia has been mentioned, but sitophobia or sitiophobia is a morbid dread of taking food, so great that often the sight or smell produces vomiting.

Possibly a better appellation would be sitiirgia, a term for hysterical anorexia, as proposed by Sollier.

Whatever the condition may be, there seems now to be a developing opinion that some neurosis constitutes the basic principle, which first manifests itself in the employment of so-called militant methods which lead to criminal acts. The crisis comes in the "hunger strike."

The "hunger strike" calls for forcible feeding, which meets with disfavor from humane and intelligent people, *i.e.*, as it is administered often by unskilled and inexperienced persons in prisons and jails.

Forcible feeding as practised in hospitals for the insane is not made much ado about. As practised on criminals, however, it has not proven a success.

The suggestion has, therefore, been made that hospitals for the insane could better administer treatment than the State can administer punishment.

It should be borne in mind, also, that other criminals may adopt the "hunger strike" as a means to an end.

Psychologists should be called upon to testify to the sanity or otherwise of persons who so persistently outrage the law of the land.

Impulsive actions, often silly and senseless, and again dangerous and destructive, are not unknown actions in psychical enfeeblement, which, when combined with grandiose ideas that reforms may be precipitated by these destructive and dangerous deeds, would appear to place the individual pretty close to the borderline.

HISTORICAL MEDICAL MUSEUM

The Historical Medical Museum, organized by Mr. Henry S. Wellcome, which is to be opened in London towards the end of June next, will include some objects of exceptional historical medical interest.

An important exhibit in the science section will be a large collection of the original apparatus used by the famous Galvani in making his first experiments in galvanism in the 18th century.

A remarkable collection of votive offerings for health will be exhibited. The custom of presenting these offerings in cases of sickness is a very ancient one, and the collection that will be shown is probably the finest ever brought together. It will include Graeco-Roman votive offerings of special anatomical and pathological interest in silver, bronze, marble and terra cotta, together with a number of similar objects used for the same purpose in medieval and modern times.

Ancient microscopes and optical instruments, gathered from all quarters of Europe, will form another important feature, and a selection of surgical instruments used by famous surgeons when operating on historical personages is promised.

The collection of amulets and charms connected with English folk medicine will be very complete, and will constitute an exhibit of more than ordinary interest.

A fine collection of early medical medals and coins from the Graeco-Roman period, ancient manuscripts and early printed medical books will also be shown, together with many other objects of interest to medical and scientific men.

Editorial Notes

THE INTERNATIONAL MEDICAL CONGRESS IN LONDON, AUGUST 6th TO 20th, 1913

The Seventeenth International Congress of Medicine, which will be held in London next August, under the patronage of H. M. the King, will be opened by H. R. H. Prince Arthur of Connaught as the representative of His Majesty, at a meeting in the Albert Hall at 11 a.m. on Wednesday, August 6th.

The last meeting of the Congress in London took place in 1881, when Sir James Paget was President. This year the President is Sir Thomas Barlow.

The central office of the Congress will be in the Albert Hall. The sectional meetings will be held in rooms in the University of London, the Imperial College, the Royal School of Science, the School of Art, and the Central Technical College. These bodies have generously placed their buildings, which are all close together in South Kensington, at the disposal of the Congress. The Royal College of Physicians, the Royal Society of Medicine, St. Thomas' Hospital, the Royal Army Medical College at Millbank, and the Royal Dental Hospital are also offering accommodation for sectional meetings. The Students' Union of the Imperial College will serve as the men's club, and the authorities of Alexandra House have kindly lent rooms for a ladies' club.

There are in all twenty-six sections and sub-sections. Their sessions will be held in the morning and in the afternoon. The morning sessions will be devoted to discussions on fixed subjects, which will be introduced by eminent medical men from every part of the world, who have been invited for the purpose. The invitations have been very generally accepted, and there seems no doubt that the discussions will be of great interest and importance. The work which the several sections purpose to do will be noticed in future issues.

Five general addresses have been arranged. These will be delivered by Professor Chauffard (Medicine), Professor Harvey Cushing (Surgery), Professor Ehrlich (Pathology), Mr. W. Bateson (Heredity), and the Right Hon. John Burns, M.P., President of the Local Government Board (Public Health). They will be delivered in the Albert Hall.

It is estimated that about 5,000 medical men and 2,000 ladies will attend the Congress.

The organization of the Congress has been going on for nearly three years. It will give some idea of the magnitude of the task to state that it has taken a complete year to arrange the personnel of the various committees, and another complete year to settle the programme of the discussions in the sections. The latter was issued on September 30th last. There are several discussions for which two or more sections have been combined. At the present time the reports drawn up by those chosen to introduce the discussions are being received and set up in type. It is hoped that all these reports which will form the basis of discussion will be printed and bound as a separate volume for each section before the Congress opens. A second volume for each section will be published subsequently, containing the speeches delivered and the independent papers presented at the Congress itself.

A circular will be issued on April 30th giving information on travelling facilities, both to London and in London; on hotels and boarding houses, on the location of the various sections, and on other points likely to be useful to members. Early in June the final programme of the scientific business will be published, which will include the list of independent papers accepted by the sections and the names of intending speakers.

Subscriptions to the General Fund of the Congress should be forwarded to the Treasurers of the Seventeenth International Congress of Medicine at the same address. It should be borne in mind that the membership subscription of £1 only suffices to meet the expenses of producing the Volume of Transactions subsequently delivered to each member. The entire cost of organization and conduct of the meeting has therefore to be provided for by private subscriptions to the General Fund. A list of the subscriptions already received will be published shortly. Office of the Secretary of the Canadian Committee, 134 Bloor St. West, Toronto.

CANCER OF THE UTERUS

Kamperman has studied the 212 cases of uterine cancer which have occurred in the university and private clinics of Dr. Reuben Peterson, and comes to the following conclusions:

1. Cancer holds fifth place as a cause of death in Michigan.

2. The death rate due to cancer during the last five years has increased 15 per cent., while the death rate due to tuberculosis has decreased.

3. Among gynecologic patients, one in every 25 has cancer of the uterus.

4. Five-sixths of uterine cancer is primary in the cervix; one-sixth in the body.

5. The age limit is from 28 to 75 years, average being 48 years.

6. Carcinoma of cervix is more frequent from 35 to 45 years of age; carcinoma of the body between 45 to 65 years of age.

7. Carcinoma of the body develops over a longer range of years than carcinoma of the cervix.

8. Patients with cancer of the cervix give a history of child-bearing in 92 per cent. of all cases; with cancer of the body in 72 per cent.

9. Though more carcinoma in parous women, carcinoma of the uterus may develop in nulliparæ.

10. Heredity has very little part in the development of uterine cancer.

11. Carcinoma of the uterus can be cured by operation in early cases.

12. The early diagnosis of carcinoma of the uterus depends on giving close attention to the earliest symptoms. An increase in the bleeding in a woman approaching the menopause demands a careful investigation and a microscopic examination of tissue from the cervix and body.

13. The first symptom in 73 per cent. of cases is an increased menstrual or an irregular intermenstrual discharge of blood.

14. Watery and foul discharge and pain are symptoms occurring at a later stage of the disease.

15. Carcinoma of the uterus occurs in many healthy and robust-looking women. Cachexia occurs only in advanced stages of the disease.

16. The radical abdominal operation offers the only absolute cure for carcinoma of the cervix.

17. Carcinoma of the corpus can be cured by a less radical operation. In inoperable cases, temporary relief can usually be secured by a palliative operation.

18. Most of the patients afflicted with this disease die either from some terminal infection or from uremia.

19. To obtain early diagnosis, the profession as well as the laity must be educated.

20. All women must be taught that the menopause means lessened flowing, and that an increase at this time may signify disease.

21. An organized campaign of education is necessary if more patients are to be saved from cancer in all its forms.—*Surg. Gyn. and Obs.*

THE LONDON MEETING OF THE CANADIAN MEDICAL ASSOCIATION

The medical profession in London are making strenuous efforts to make the next annual meeting of the Canadian Medical Association an unqualified success. The meeting will be held on the 24th, 25th, 26th and 27th of June. Already arrangements are well advanced. The first two days will be devoted to Sections in Medicine, Surgery, Gynecology and Obstetrics, Pathology, Public Health, Eye, Ear, Nose and Throat, and X-rays. On the forenoon of the third day Dr. McPhedran, of Toronto, will open a discussion on Diseases of the Stomach, and Dr. Stockton, of Buffalo, Dr. Martin, of Montreal, Dr. Aaron, of Detroit, H. J. Patterson, F.R.C.S., London, Eng., and others will take part. On the afternoon of the same day a symposium on the Thyroid Gland will occupy the attention of the Association, and Dr. Ochsner, of Chicago, will open the discussion on the surgical aspects of diseases of the Thyroid. On Friday forenoon Dr. Billings, of Chicago, will conduct a medical clinic before the Association. On the afternoon of that day Dr. J. B. Murphy, of Chicago, will give a lantern demonstration on Surgical Diseases of Bones and Joints. Among others outside of Ontario who have intimated their intention of being present are Dr. McKechnie, of Vancouver, Dr. Lehman, of Winnipeg, Dr. Angus McLean, of Detroit, Dr. Halpenny, of Winnipeg, and Dr. Emil Beck, of Chicago. The last-mentioned will give a lantern demonstration entitled "Eight Years' Experience in the Treatment of Sinuses with Bismuth Paste." Drs. Gallie and Robertson, of Toronto, will contribute a lantern demonstration of experiments in Bone Transplantation. The Presidential address will fall to Dr. H. A. MacCallum, of London, the President-elect; the address in Medicine will be given by Dr. Barker, of Johns Hopkins, and the address in Surgery by Dr. Hutchison, of Montreal.

It is confidently expected that a return rate on the railways at single fare will be ensured by the attendance, and in order to make that more certain all members, however near the place of meeting, are specially requested to secure a standard certificate from the railway agent at the place of starting. The single rate will be a material consideration to those attending from a distance.

London is one of the most attractive cities in the Dominion, especially in the summer months, and this fact, coupled with the outstanding reputation of a large number of the men who are to take part in the programme, should ensure a large attendance. The Forest City promises its guests a generous hospitality on the occasion of this meeting.

MEDICAL DEGREES FOR QUEEN'S MEN

Degree of M.D.C.M.—W. Boake, Vancouver, B.C.; G. W. Burton, M.B., Great Shemogue, N.B.; M H. W. Fizzell, Schomberg; W. G. Hamilton, M.B., Elgin; H. M. Harrison, M.B., Kingston; J. L. Tower, B.A., Belleville; G. N. Urie, B.A., Deloraine, Man.

Degree of M.B.—S. M. Asselstine, Marlbank; V. Blakslee, Sydenham; F. W. Burden, St. Johns, Nfld.; C. T. Coulter, Thornton; K. C. Dean, Brighton; J. S. Dickson, Kingston; J. A. Dobbie, B.A., Ottawa; A. B. Earl, Athens; W. R. Jeffrey, St. Mary's, N.B.; A. W. Johnson, Oak Leaf; R. F. Kelso, M.A., Wallacetown; W. W. Kennedy, B.A., Stratford; V. T. Lawler, Kingston; F. L. Leacock, Crystal; L. M. MacDougall, M.A., Kingston; J. F. Maciver, Gould, Que.; W. M. MacKay, Cornwall; H. Mackinnon, Lake Anslie, N.S.; C. G. Merrick, Kingston; D. J. Millar, North Battleford, Sask.; W. M. McLaren, Cobden; L. J. Nacey, Oswego, N.Y.; J. Norman, Cupids, Nfld.; R. B. Richardson, Norwood; N. Sanford, Montego Bay, Jamaica; A. B. Simes, Sweet's Corners; J. C. Smith, Kingston; M. T. Smith, Greenbush; E. G. Springer, Hyinn, Barbadoes; E. L. Stone, Forfar; C. K. Wallace, B.A., Kemptville; G. A. Williams, Allenford; L. E. Williams, St. Thomas.

Prize List.—Faculty Prize in Anatomy, S. R. McGregor. Faculty Prize, $25.00, for highest marks on second year examinations in Anatomy, Physiology, Histology, Chemistry and Materia Medica, C. B. Waite. Faculty Prize for highest percentage of marks on second year examination in Materia Medica, C. B. Waite. The N. F. Dupuis Scholarship for highest marks in Chemistry of the second year, value $60.00, G. T. G. Boyce. The Dean Fowler Scholarship for highest percentage of marks on the work of the third year, value $50.00, D. E. Bell. Faculty Prize for best written and practical examination in third year Pathology, M. D. Graham. The Chancellor's Scholarship, value $70.00, for highest percentage of marks on five years' course, not granted. Medal in Medicine, E. W. Boak. Medal in Surgery, V. T. Lawler.

ONTARIO HEALTH OFFICERS' ASSOCIATION

The Annual Conference of Medical Officers of Health for Ontario will be held at the Parliament Buildings, Toronto, on Thursday and Friday, May 29th and 30th next.

The following papers have been promised:

1. Duties of the Modern Medical Officer of Health—Chas. J. Hastings, Toronto; George A. Dickinson, Port Hope.

2. The Exanthemata—James Roberts, Hamilton; M. B. Whyte, Toronto. "Diagnosis of Smallpox"—R. W. Bell, Toronto.

3. Tuberculosis—"Sputum Examination in Ontario"—C. D. Parfitt, Gravenhurst; Duncan Graham, Toronto; Miss Eunice Dyke, Toronto.

4. The Milk Question—"Essentials for the Production of a Safe Milk Supply"—G. G. Nasmith, Toronto. "Importance of Milk as a Food"—A. W. Macpherson, Peterborough.

5. Disposal of Waste and Garbage—In Cities, R. C. Harris, Commissioner of Works, Toronto. In Towns, W. R. Hall, Chatham.

6. Disposal of Domestic Sewage in Suburban and Rural Areas—Robt. E. Wodehouse, Fort William.

7. The Scope of Work in Home Hygiene—Chas. A. Hodgetts, Ottawa.

8. A Paper—C. N. Laurie, Port Arthur.

9. A Paper—John A. Amyot, Toronto.

10. President's Address—Adam H. Wright, Toronto.

11. The Use of Vital Statistics in the Public Health Service—Professor George C. Whipple, Harvard University.

Arrangements are being made for reduced railway fares. As there are about eight hundred and fifty Medical Officers of Health in Ontario, the prospects are for a very large meeting.

EMERSON BULL,
W. H. JEFFS,
GEORGE G. NASMITH,
Committee on Papers.

J. W. S. MCCULLOUGH,
Secretary.

A NEW METHOD OF GRADING MILK AND CREAM

In the improvement of the sanitary conditions on dairy farms, the score card has been of service, but it was lacking in one important feature, as there was no means by which the consumer could judge of the wholesomeness and nutritive value of the milk. To overcome this deficiency the Health Department of the District of Columbia has devised a new method for grading the finished product. This is set out in detail in the U. S. Public Health Reports for February 21, 1913.

By this method of grading 100 points are allowed for the dairy farm, both equipment and management; 100 points for the cattle; 100 points for the milk-distributing station (when there is one);

100 points for chemical analysis; 200 points for bacteriological examination—total 600 points. By dividing the total number of points allowed by the total number of points possible, a figure is obtained in the form of a decimal fraction representing the grade of milk.

The nutritive value of the milk is determined by the total solids, and the scale is based upon this and not upon the butter fat. This scale runs from 11 per cent. or less, when the rating is zero, to 13 per cent., but not more than 13.25 per cent., when the rating is 90; more than 13.25 per cent. the rating is 100. Forty points are deducted if any sample contains added water.

The rating for bacteriological findings, raw milk and pasteurized milk, is as follows: For the first 1,000 colonies of the colon group or streptococci, whichever may be the more numerous, deduct 20 points, and deduct 10 for each subsequent 1,000; in pasteurized milk, for the first 100 colonies of the colon group or streptococci, whichever may be the more numerous, deduct 10 points, and deduct two points for each subsequent 100.

By this method the dealer, in order to obtain a high grading for his milk as delivered to the consumer, will have to obtain it in the first instance from farms which score high, and will also have to see that it is carefully handled after it comes into his possession. He will have to keep in closer touch with the farms that produce milk for him; and the farmer will so have to conduct his farm as to obtain the highest score possible.

NOTABLE FEATURES ON THE PROGRAMME OF HYGIENE CONGRESS

The Fourth International Congress on School Hygiene, and the first to be held in America, at Buffalo, August 25th-30th, according to an announcement of the Executive Committee, will be by far the most elaborate effort yet made in this country toward getting the problem of school hygiene before the world. The first International Congress was held at Nuremberg in 1904, the second at London in 1907, the third at Paris in 1910.

The objects of the Buffalo Congress are:

1. To bring together men and women interested in the health of school children.

2. To organize a programme of papers and discussions covering the field of school hygiene.

3. To assemble a school exhibit representing the best that is being done in school hygiene.

4. To secure a commercial exhibit of practical and educational value to school people.

5. To publish the proceedings of this Congress and distribute them to each member.

In addition, there is a plan on foot to effect a permanent organization for the purpose of carrying out school hygiene reforms in all the individual communities in this country, if not all over the world.

One of the interesting features of the Congress will be the presence of delegates representing the community interest in school hygiene, including those appointed by mayors and governors, by women's clubs, by school boards, boards of health, by mothers' congresses and charity organization societies and boards of trade. Their help is being solicited with a view of organizing the community in a campaign of school hygiene reform.

The Programme Committee announces a programme of two hundred and fifty papers and fifteen symposiums, taking up hygiene from the following points of view:

1. The hygiene of school buildings, grounds, material and upkeep.

2. The hygiene of school administration and schedule.

3. Medical, hygienic and sanitary supervision in schools.

The contributors to the programme make up a notable list of speakers, college presidents and professors; state, city and county commissioners of education; teachers and superintendents of public schools, medical college professors; state, county and city health officers; physicians in private practice, engineers and architects.

Special discussions are being arranged on the following subjects:

School Feeding: Arranged by the Committee on School Feeding of the American Home Economics Society.

Oral Hygiene: Arranged by National Mouth Hygiene Association.

Sex Hygiene: Arranged by the American Federation of Sex Hygiene.

Conservation of Vision in School Children: Arranged by the Society for the Prevention of Blindness.

Health Supervision of University Students: Arranged by Dr. Mazyck P. Ravenel, University of Wisconsin.

School Illumination: Arranged by the Society of Illuminating Engineers.

Relation Between Physical Education and School Hygiene: Arranged by the American Physical Education Association.

Tuberculosis Among School Children: Arranged by the Society for the Prevention of Tuberculosis.

Physical Education and College Hygiene: Arranged by the Society of Directors of Physical Education in Colleges.

The Binet-Simon Test: Arranged by Professor Terman, Stanford University.

The Mentally Defective Child: Arranged by Dr. Henry H. Goddard, Vineland, N.J.

Various citizens' committees of Buffalo are arranging an elaborate entertainment for the benefit of visiting delegates. There will be receptions and a grand ball, a pageant of school children, and excursion trips to the great industrial plants of Buffalo, and to the scenic wonders of Niagara Falls. The Boy Scouts will act as official guides.

Delegates will attend from every college and university of note in this country, from other leading educational and hygienic institutions and organizations, and from every country in which an active interest is being shown in the welfare of school children, which includes all the leading nations of the world.

The Congress is open to all persons interested in school hygiene upon the payment of a fee of five dollars. Application for membership should be sent to Dr. Thomas A. Storey, College of the City of New York, New York City.

President Wilson has accepted the honorary office of patron of the Congress. The President of the Congress is Mr. Charles W. Eliot, of Harvard University. The Vice-Presidents are Dr. William H. Welch, of Johns Hopkins University, and Dr. Henry P. Walcott, President of the recent International Congress on School Hygiene and Demography, and chairman of the Massachusetts State Board of Health.

MEDICAL COUNCIL OF CANADA

The next meeting of the Medical Council of Canada will be held at Ottawa on the 17th of June and four following days, and it is expected by that time the Council will be in a position to open the new register to all those who have been in active practice in Canada for ten years prior to the 7th of November, 1912, which was the date on which the Act came into force.

News Items

Guelph, Ontario, will aid its General Hospital to the extent of $30,000.

Dr. W. A. Young, Toronto, is spending a month's holiday in Atlantic City.

Dr. Charles Sheard, Jr., Toronto, has gone abroad for graduate study for three years.

Dr. J. S. Sprague, Perth, Ontario, a frequent contributor to the medical press, has moved to Belleville.

Dr. Chas. A. Clouting, New York, was in Toronto recently on his way home from a four months' visit in England.

Dr. H. E. Langis, Vancouver, B.C., paid a visit to Toronto on his return from spending the winter in Europe.

Dr. John Stewart, Halifax, N.S., has been selected to receive the honorary degree of Doctor of Laws from the University of Edinburgh.

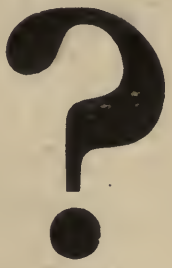
Dr. T. A. Lomer, of Montreal, has been appointed Medical Officer of Health for Ottawa. Dr. Lomer is at present in Paris pursuing a special course of study.

Dr. Tait Mackenzie, Philadelphia, exhibited his magnificent statue, the Boxer, at the International Congress of Physical Education in Paris, March 17th to 22nd.

Prof. J. George Adami, McGill University, delivered the Address in Medicine at the annual meeting of the Medical Society of the State of New York, at Rochester, April 29th. The title of his address was: "Certain Elementary Concepts in Education Applied to Medicine."

Dr. George W. Ross, Toronto, by invitation read a paper on "The Polygraph" before the annual meeting of the Medical Society of the State of New York. He also took part in the discussion on "Human Serum Treatment for Hemorrhagic Diseases of the New-Born."

Dr. J. E. Lundy, Portage la Prairie, Man., died Sunday, the 27th of April. He was born in Galt, Ontario, 38 years ago, and went West in 1901, engaging in practice with his brother, the late Frank B. Lundy, of Portage la Prairie. He was a son of the late Dr. Lundy, of Preston, Ontario.



Are you particular as to the condition of the iron in your Blaud preparations?

Frosst's Perfected Blaud Capsules present True Ferrous Carbonate.

Each 10 grain Capsule contains, approximately, 1 grain of Iron.

Charles E. Frosst & Co., Montreal.

Publishers' Department

Hanover Square, New York.

DEAR DOCTOR:—

The attention, legislative and otherwise, which the production and distribution of milk is receiving throughout the country is most gratifying, particularly so to those who appreciate the importance of such care and supervision of one of our most valuable food products.

Little less in importance is the proper preparation or modification of milk for use of the infant and invalid.

For neutralizing the acid of cows' milk in place of other alkalies—particularly lime water with its non-uniformity, variable strength and constipating effect, the employment of Phillips' Milk of Magnesia has proved an interesting and important step in advance.

The greater ease of retention and hence assimilation by addition of the Phillips preparation of Magnesia serves greatly to enhance the nutritive value of the milk.

Frequent requests by members of the profession for our new and simplified "Physician's Pocket Card for Home Modification of Cows' Milk" is most flattering, and we take this opportunity of submitting to you on enclosed paper the matter as it appears on the card. If it interests you and you desire any number of the cards we will be pleased to forward them without any expense to you if you will kindly mail professional card.

Very truly yours,

THE CHAS. H. PHILLIPS CHEMICAL CO.

FORD AUTOMOBILES.—The automobile factory that turns out more cars than any other in the British Empire is located at Walkerville, Ont. It is the Ford Motor Company of Canada.

No other factory in His Majesty's possessions, excepting the Ford factory at Manchester, England, approaches, in the quantity of its output, the Canadian factory.

The manufacturing schedule of the Canadian factory calls for the building of 15,000 Model T's this year. And the output is keeping up with the schedule.

Right now the daily production is crowding the century mark. The number of Model T's built each day ranges from eighty to a hundred.

Men's Coats for Spring Wear

Chesterfield slip-on and the popular Guards coat with strap and pleats at back.

Harris tweeds, Scotch cheviots, Irish homespuns and West-of-England covert coatings.

$25, $30, $35, $40

Rain Coats in double texture Paramattas, Gabardines and proofed cashmire cloths.

$10 to $30

Silk Hats, Derbies, Soft Hats
Caps and Gloves

Fairweathers Limited

84-86 Yonge Street

MONTREAL TORONTO WINNIPEG

Equipment recently installed insures a production of 100 Model T's and more every day.

Installation of new equipment is in accordance with plans adopted last year calling for the doubling of the capacity of the plant. The machine shop has been greatly enlarged, as have the heat-treating plant and other departments.

So heavy is the demand for Fords on this plant that it was found necessary to put in many of the costliest and most efficient machines known to the automobile industry. These are duplicates of some used in the factory of the Ford Motor Company at Detroit.

For instance, the Canadian factory has just placed in its machine shop a big four-way drill that bores forty-five holes in a cylinder casting in one operation. Most factories would soon run out of work for this machine, but the Canadian factory expects that it will not be idle during any part of the year.

Also in the machine shop are several of the large milling machines that mill right cylinder castings at one operation, two at a time. There is also a fine battery of drills and boring machines.

Nowhere can be found an automobile factory better equipped to build high-class cars.

At present there are some 1,500 men employed. These are skilled workmen and trained to highest efficiency.

Fords built by this factory are for the Canadian market and for the British maritime possessions. Consequently many are found thousands of miles from the land of their birth.

"The sun never sets on His Majesty's empire," nor does it ever go down on the Canadian-built Ford.

Fords from the Walkerville factory to-day are travelling the dusty highways of parched India, and the muddy trails of Australia. They are exploring the veldts of South Africa and are traversing untried trails in New Zealand.

The big production of the Canadian factory is not keeping pace with the demands for Model T's made upon it. Right now there are many hundreds of orders on its books waiting for cars to be built to fill them.

It is during the summer months, when infants suffer most from improper food and tainted milk, that the value of our Modified Milk Powder (C. M. P.) is most apparent. This milk powder, while free from pathogens, has not been sterilized, and retains all the antiscorbutic qualities of fresh milk, and closely approximates the milk of the mother. Only a moment is required to dissolve it in

The Happy Health Habit

The happy health habit is not easy to acquire in Summer when the appetite is fickle, when the digestive powers are not in fullest vigor and when the warm weather necessitates a change in diet. The surest way to get Summer comfort and palate joy is to drop heavy meats and starchy vegetables and eat well-cooked cereals, fresh fruits and fresh vegetables. The most deliciously wholesome combination for the Summer days is

Shredded Wheat Biscuit

With Strawberries

—a dish that is appetizing, satisfying and easily digested. One or two Shredded Wheat Biscuits with strawberries or other fresh fruits and cream is not only a rare palate pleasure, but will supply all the nutriment needed for a half day's work.

Heat the Biscuit in the oven to restore crispness; then cover with strawberries or other berries and serve with milk or cream, adding sugar to suit the taste—more nutritious and more wholesome than ordinary "short-cake."

The Only Breakfast Cereal Made in Biscuit Form

Made only by

THE CANADIAN SHREDDED WHEAT CO., LTD. NIAGARA FALLS, ONT.

Toronto Office: 49 Wellington St. East.

water at the time of feeding, and all the danger coming from keeping milk for many hours during the summer heat is avoided.

There is no food approaching Modified Milk Powder (C. M. P.) in convenience, in scientific correctness and in practical effectiveness. In connection with our Sweet Whey Powder (C. M. P.) for difficult cases, it satisfactorily solves the question of infant feeding. The following analysis shows the dietetic correctness of these foods:

Modified Milk Powder.		Sweet Whey Powder.	
Milk Fat	11.55%	Casein	0.35%
Casein	9.50%	Albumen	12.38%
Milk Albumen	9.60%	Milk Sugar	76.55%
Milk Sugar	60.10%	Ash	9.10%
Milk Salts	7.75%	Moisture	1.62%
Moisture	1.50%		
	100.00%		100.00%

Free samples will be sent to physicians upon application by mail.

CANADIAN MILK PRODUCTS, LIMITED,
Mail Building, Toronto.

The Pneumonia Convalescent.—In spite of all the modern advances in scientific therapy, and the improvements in the general handling and management of acute infectious diseases, Acute Lobar Pneumonia still deserves the title ascribed to it by Osler: "The Captain of the Men of Death." There are, however, especially during the fall and winter months, many cases of the lobular or irregular pneumonia that so often complicates or follows la grippe. When this condition supervenes it is more than likely to follow a sub-acute or chronic course, and convalescence is frequently long delayed. Under such circumstances, in conjunction with treatment designed to hasten resolution, a general blood tonic and vitalizing agent helps materially to shorten the convalescent period. Pepto-Mangan (Gude) is of much value in this field, because it not only increases the solid elements of the blood, but also acts as a true tono-stimulant to the organism generally. As Pepto-Mangan is free from irritant properties and constipating action, it is especially serviceable in the reconstructive treatment of the devitalization following the pneumonia of the aged.

BOVRIL

has been before the medical profession for twenty-seven years and has enjoyed a very large measure of support.

Stringent physiological tests made at Trinity College, Dublin, confirm the favorable opinion of Bovril hitherto based on results following its use.

See *"British Medical Journal"* Sept. 16, 1911.

Dr. Deimel Underwear (LINEN-MESH)

The Dr. Deimel Underwear is the garment for people who desire to enjoy bodily comfort and cleanliness to a degree not obtainable from woolen or cotton underwear. For hot weather you need more than ever this cool, cleanly underwear. For the perspiring, overheated body, it is a refreshing luxury.

DEIMEL LINEN-MESH COMPANY

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New York, Washington, D. C., San Francisco, Brooklyn, Baltimore, Detroit, London, Eng.

We also sell the Dr. Deimel Linen-Mesh Supporters.

One of the Heroes of the Public Health Service.—The good deeds of medical officers, inspectors and health workers generally are done in secret and seldom find a record in the annals of the press. Behind the official there is the true man or woman with noble purposes and ever ready for self-sacrificing service. Yet now and then the world is given an insight to some of the finer actions of the workers, and we are grateful to *The Times* for the record it has published of what Sir George Turner has done in Cape Colony. Eighteen years ago, when nearly fifty years of age, Dr. Turner went out to the Cape, and for twelve years "he rendered services to South Africa and to the cause of humanity at large which have never been adequately recognized except by a very few." When rinderpest broke out, and decimated the herds of the country, he spent night and day in striving to stay its ravages. Further, during the terrible Boer war, when typhoid was robbing the army of more soldiers than were falling on the battlefields, he came to the aid of Lord Roberts, and spent his life's energy in supervising the military hospitals and beating back the epidemic. "It was in the midst of these activities," says the writer, "that Dr. Turner devoted himself to the noblest work of his life. There was then a leper asylum at Pretoria, with about fifty Dutch and forty native patients. He gave up all his spare time to work among the lepers, doing all he could to alleviate their lot, and prosecuting a tireless research into the nature of the disease. In addition to this, he made as many post-mortem examinations as possible in his laboratory, rising at dawn in order to have time for the work. On reaching the age limit, Dr. Turner retired, to pursue his studies into the bacteriological side of leprosy in the laboratories of this country. Suddenly, after several years' work, his eye was attracted by certain marks on his hand while he was shaving, and he recognized them at once as the stamp of the disease which he had set himself to fight. His diagnosis was independently confirmed by two specialists, to whom he went at once, and from that time he has worked unswervingly amid the pain and beneath the shadow of a leper's lot. For the last two years he has been living in seclusion." To such a man the world's honors may appear but empty recognition. Yet we are glad to know that Dr. Turner received a knighthood at the recent bestowal of New Year's honors. His name deserves to be placed upon the roll of the world's heroes—those who in the quieter walks of public service spare not themselves in order that others may be helped and relieved. It is man at his best, and nothing in the world can compare with it.—*The Sanitary Record.*

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Biological
& Medical
Serials

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